NW-HD5

SERVICE MANUAL

Ver. 1.4 2005.09

US Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Tourist Model

On the supplied software

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- In the event a problem occurs with this software as a result of defective manufacturing, SONY will replace it. However, SONY bears no other responsibility.
- The software provided with this player cannot be used with equipment other than that which is so designated.
- Please note that, due to continued efforts to improve quality, the software specifications may be changed without notice.
- Operation of this player with software other than that provided is not covered by the warranty.
- The ability to display the languages on your SonicStage will depend on the installed OS on your PC. For better results, please ensure that the installed OS is compatible with the desired language you want to display.
  - We do not guarantee all the languages will be able to be displayed properly on your SonicStage.
  - User-created characters and some special characters may not be displayed.
- Depending on the type of the text and characters, the text shown on SonicStage may not be displayed properly on device. This is due to:
  - The capability of the connected player.
  - The player is not functioning normally.
- The explanations in this manual assume that you are familiar with the basic operations of Windows.
  For details on the use of your computer and operating system, please refer to the respective manuals.

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SPECIFICATIONS

Maximum recordable number of track (Approx.)*

ATRAC3	ATRAC3plus	MP3
5,000 (132 kbps)	2,500 (256 kbps)	5,000 (128 kbps)
6,000 (105 kbps)	10,000 (64 kbps)	10,000 (64 kbps)
10,000 (66 kbps)	13,000 (48 kbps)	

* When transferring four-minute tracks

Sampling frequency
44.1 kHz (ATRAC3plus), 32/44.1/48 kHz (MP3)

Audio compression technology
Adaptive Transform Acoustic Coding3plus (ATRAC3plus)
MPEG-1 Audio Layer-3 (MP3)

Frequency response
20 to 20,000 Hz (single signal measurement during playback)

Output
🎧 (headphones)/LINE OUT*:
Stereo minijack/180 mV
* The jack is used for both headphones and LINE OUT.

Operating temperature
5 to 35ºC (41 to 95ºF)

Power source
Rechargeable lithium-ion battery: LIP-880PD, 3.7V, 880 mAh, Li-ion
AC power adaptor: DC IN 6 V

Battery life (continuous playback)
ATRAC3plus format (48 kbps): Approx. 40 hours
MP3 format (128 kbps): Approx. 30 hours

Dimension
Not including projecting parts:
Approx. 59.9 × 88.7 × 14.2
(23.58 × 34.92 × 5.59 inches) (w/h/d)

Including projecting parts:
Approx. 59.9 × 89.3 × 14.5 mm
(23.58 × 35.15 × 5.7 inches) (w/h/d)

Mass
Approx. 135 g (4.82 oz)

Supplied Accessories

- Headphones (1)
- Dedicated USB cable (1)
- AC power adaptor (1)
- Carrying case (1)
- CD-ROM (1)*
  (SonicStage software, PDF of Operating Instructions)
- Quick Start Guide (1)

* Do not play this CD-ROM on an audio CD player.
(The rechargeable battery has been installed in the player beforehand).

For customers in the US
The AC power adaptor supplied with this unit is not intended to be serviced. Should the AC power adaptor cease to function in its intended manner during the warranty period, the adaptor should be returned to your nearest Sony Service Center or Sony Authorized Repair Center for replacement, or if a problem occurs after the warranty period has expired, the adaptor should be discarded.

Design and specifications are subject to change without notice.

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PORTABLE HARD DISK AUDIO PLAYER

9-879-662-05
2005I05-1
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Sony Corporation
Connect Company
Published by Sony Engineering Corporation

SONY®

Notes on the AC power adaptor

- Use only the AC power adaptor supplied with the player. Do not use any other AC power adaptor since this may cause the player to malfunction.
- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- If you are not going to use the player for a long time, be sure to disconnect the power supply. To remove the AC power adaptor from the wall outlet, grasp the adaptor plug itself; never pull the cord.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

关于安全相关零部件的警告

原理图和零件清单中标有⚠记号的零部件、或带有⚠记号的虚线所表示的零部件，对于安全操作至关重要。更换时，必须依据本手册或索尼公司追加发行的手册中列明的零件号，使用索尼公司的零件进行。

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

- Replacement of CXR704060-201GA (IC1003), S1R72003BOOA100 (IC2001), CXR710160-213GH (IC3001), CXD1616GH (IC7001), MT48H8M16LFB4-10 (IC7002) and SC901584EPR2 (IC9003) used in this set requires a special tool.
- When IC1101 and IC1102 (IC1102 is mounted only E, Taiwan, Korean, Chinese and Tourist models) on the MAIN board are damaged, exchange the new MAIN board for the MAIN board which IC damaged.

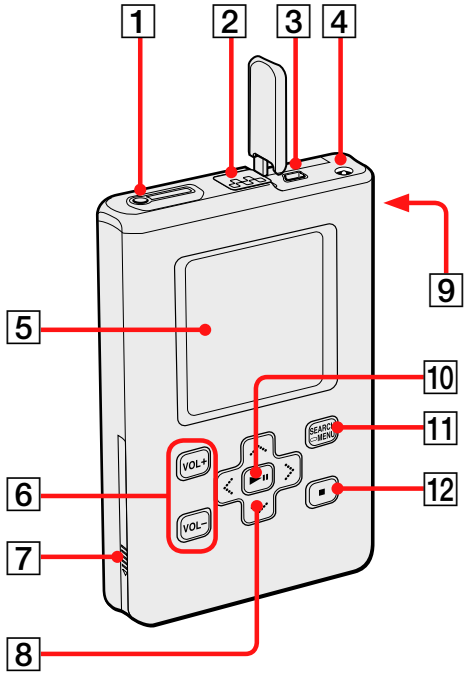
SYSTEM REQUIREMENTS

Computer	IBM PC/AT or Compatible • CPU: Pentium III 450 MHz or higher • Hard disk drive space: 200 MB or more (1.5 GB or more is recommended.) (The amount of space will vary according to the Windows version and the number of music files stored on the hard disk.) • RAM: 128 MB or more Others • CD drive (capable of digital playback by WDM) (CD-R/RW drive is necessary for CD writing.) • Sound Board • USB port
Operating System	Factory installed: Windows XP Media Center Edition 2005/ Windows XP Media Center Edition 2004/ Windows XP Media Center Edition/ Windows XP Professional/Windows XP Home Edition/ Windows 2000 Professional (Service Pack 3 or later)/ Windows Millennium Edition/Windows 98 Second Edition
Display	High Color (16 bit) or higher, 800 × 600 dots or better (1024 × 768 dots or better is recommended.)
Others	• Internet access: for Web registration, EMD services and CDDB • Windows Media Player (version 7.0 or higher) installed for playing WMA files

Notes

- SonicStage is not supported by the following environments:
  – Personally constructed PCs or operating systems
  – An environment that is an upgrade of the original manufacturer-installed operating system
  – Multi-boot environment
  – Multi-monitor environment
  – Macintosh
- We do not guarantee trouble-free operation on all computers that satisfy the system requirement.
- The NTFS format of Windows XP/Windows 2000 Professional can be used only with the standard (factory) settings.
- We do not guarantee trouble-free operation of the system suspend, sleep, or hibernation function on the computers.

Guide to Parts and Controls



1 (headphones)/LINE OUT jack
2 HOLD switch
3 USB connector
4 DC IN jack
5 Player display
6 VOL +*/VOL – (volume) buttons
7 Battery compartment lid
8 / / / buttons
9 Hole for hand strap**
10 ▶II (play/pause) button
11 SEARCH/MENU button
12 ■ (stop) button

* Use the tactile dot as a reference when operating the player.
** You can attach your own hand strap.

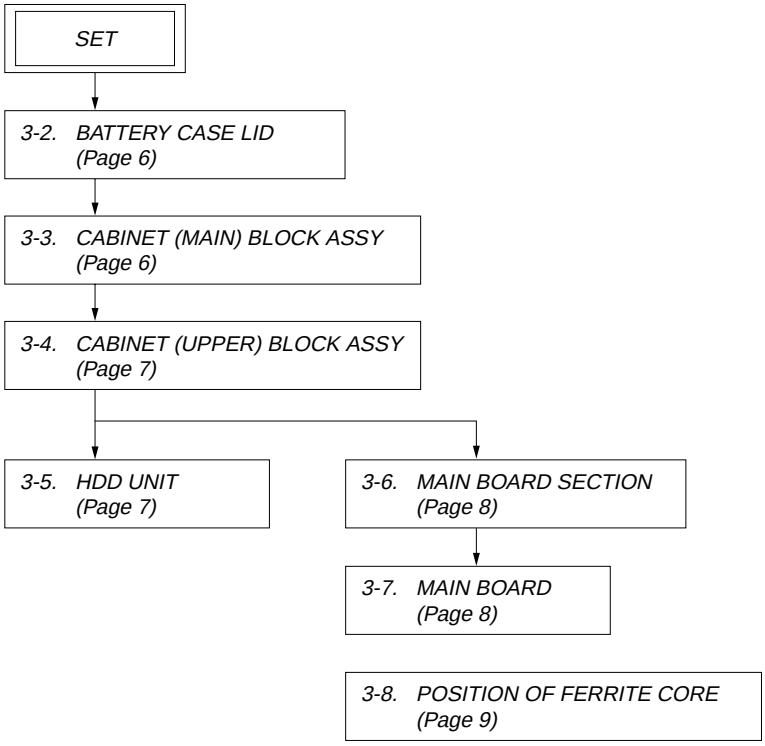
About the serial number

The serial number provided for this player is required for the customer registration. The number is on a label on the bottom of the player. Do not remove the label.

SECTION 3
DISASSEMBLY

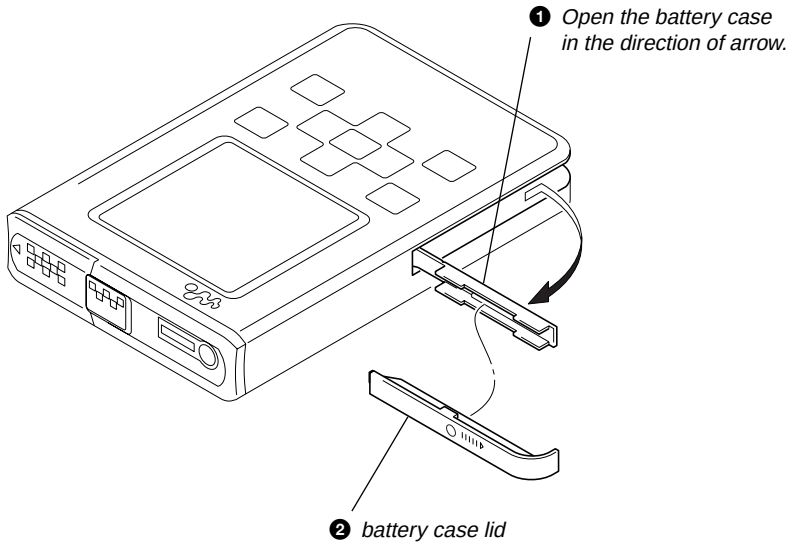
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

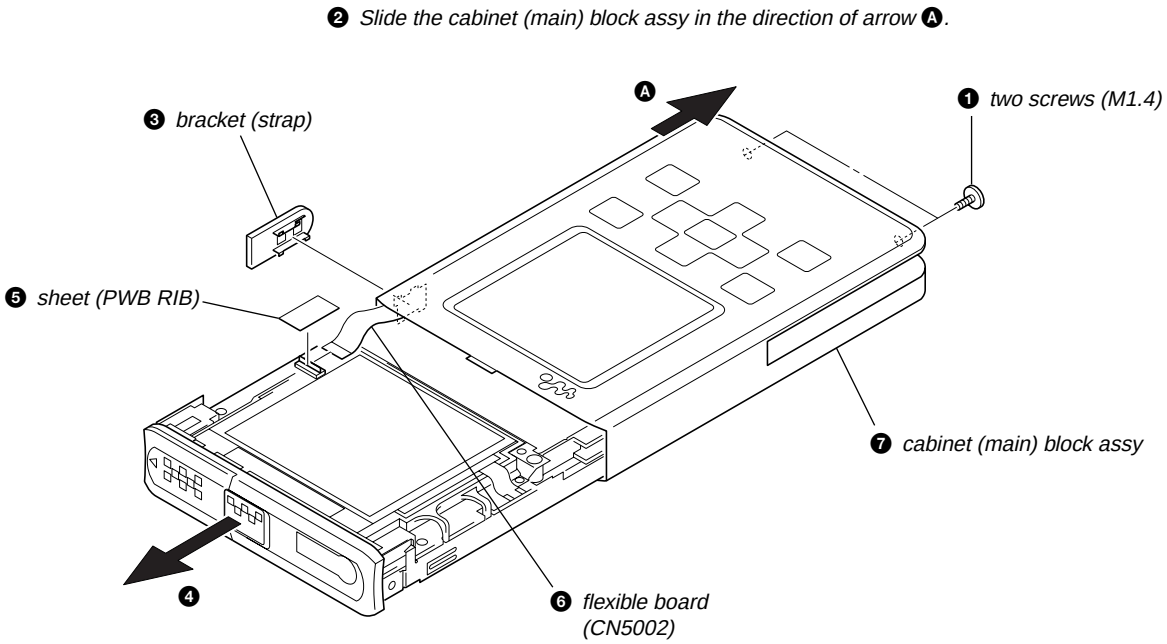


Note: Follow the disassembly procedure in the numerical order given.

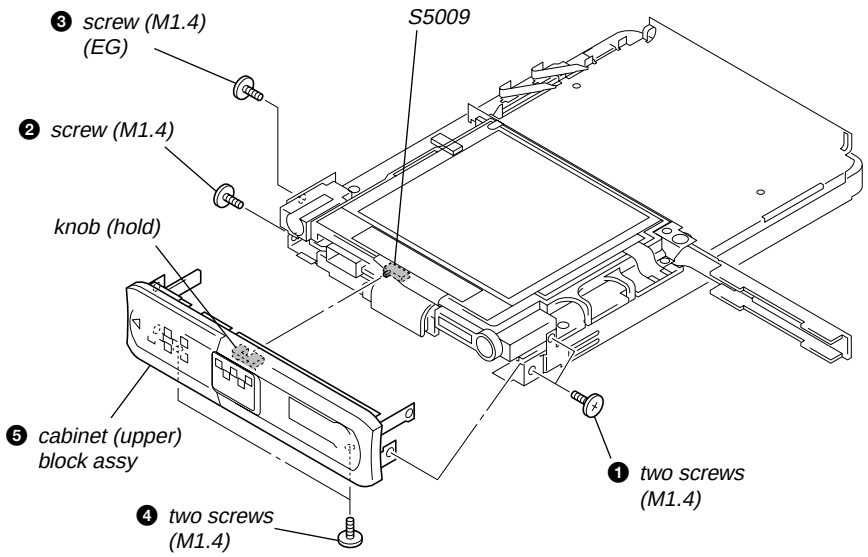
3-2. BATTERY CASE LID



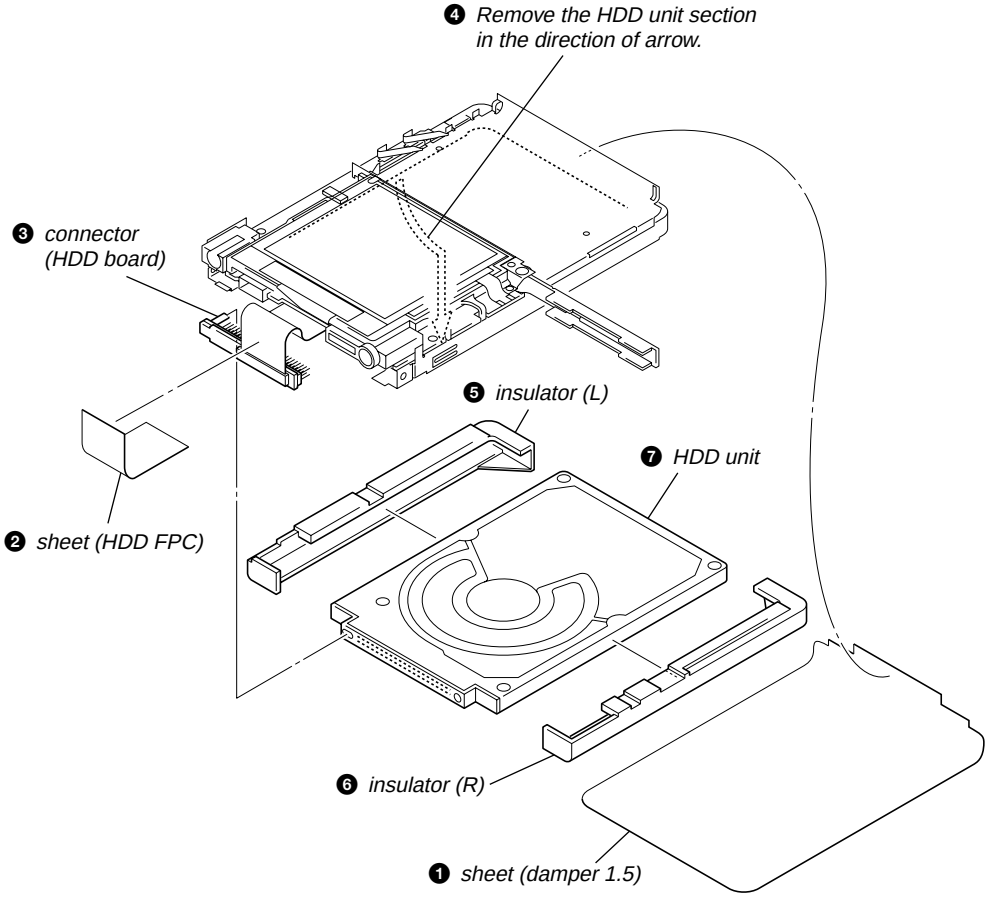
3-3. CABINET (MAIN) BLOCK ASSY


❷ Slide the cabinet (main) block assy in the direction of arrow Ⓐ.
Ⓐ
❶ two screws (M1.4)
❸ bracket (strap)
❺ sheet (PWB RIB)
❼ cabinet (main) block assy
❹
❻ flexible board (CN5002)

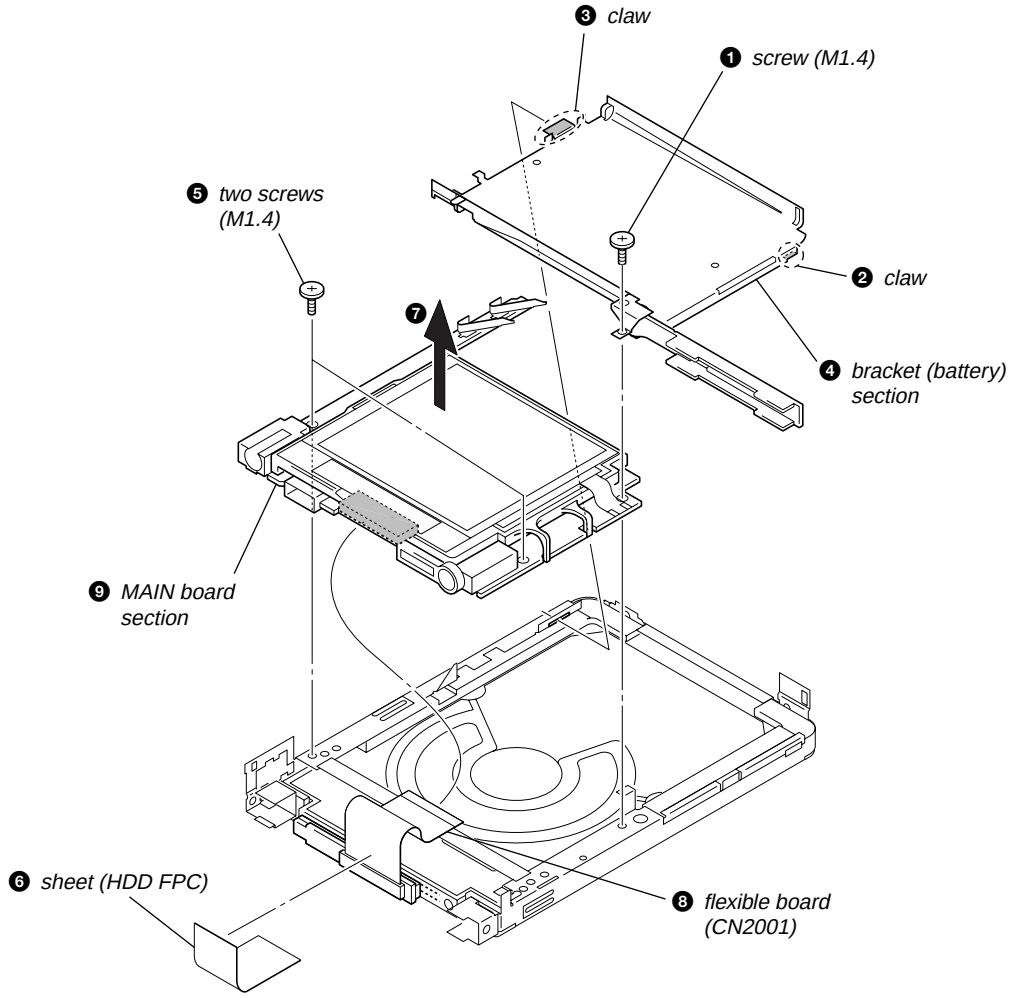
3-4. CABINET (UPPER) BLOCK ASSY



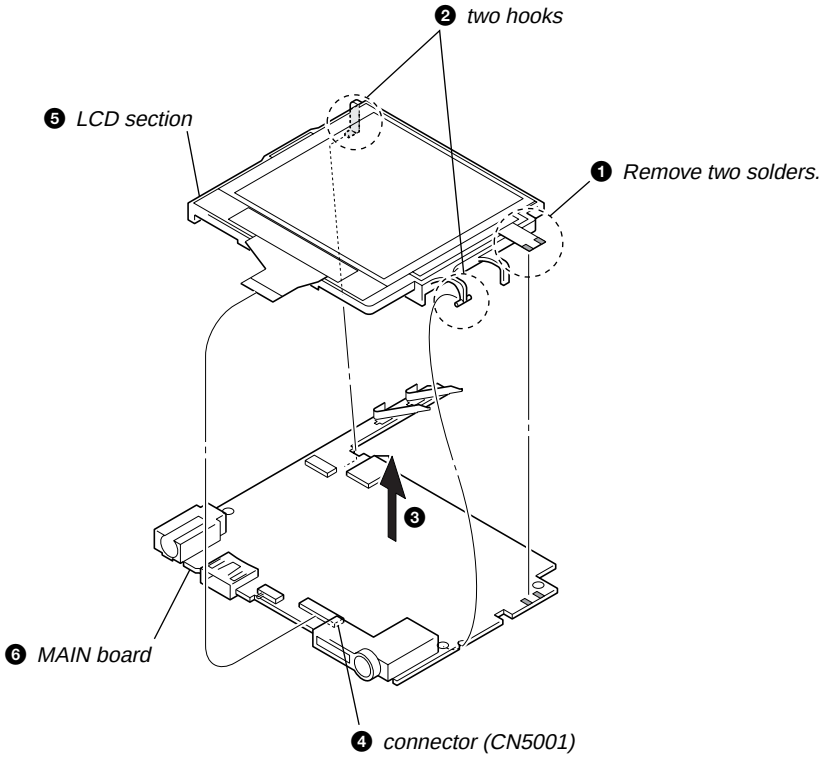
3-5. HDD UNIT


❹ Remove the HDD unit section in the direction of arrow.
❸ connector (HDD board)
❺ insulator (L)
❼ HDD unit
❷ sheet (HDD FPC)
❻ insulator (R)
❶ sheet (damper 1.5)

3-6. MAIN BOARD SECTION

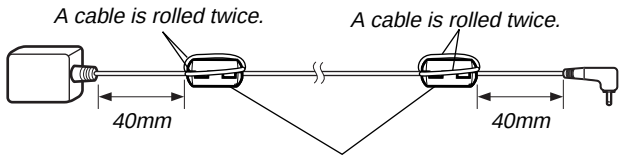


3-7. MAIN BOARD



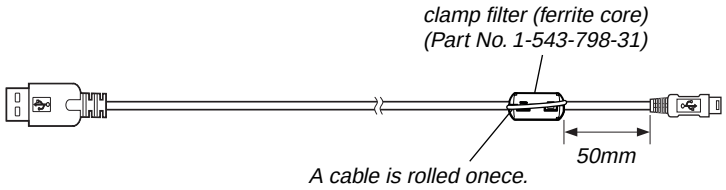
3-8. POSITION OF FERRITE CORE

-AC ADAPTOR-



clamp filter (ferrite core)
(Part No. 1-543-798-31)

-USB CABLE-



SECTION 4
TEST MODE

1. OUTLINE

Power supply voltage : 3.65 to 3.75 V
Volume : 27
SOUND EQ : OFF
AVLS : OFF
HOLD switch : OFF
Set states : horizontal states

2. SETTING THE TEST MODE

1. Supply power to the set.
2. Switch-on the HOLD switch.
3. Operate as follows.

While pressing the SEARCH/●MENU key, press the key as following order.
> → > → < → < → > → < → > → < → ∧ → ∨

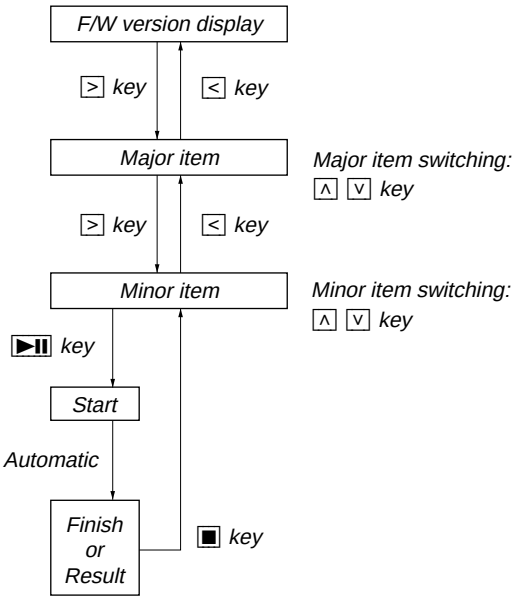
4. Switch-off the HOLD switch and enter the test mode.

3. RELEASING THE TEST MODE

Press the ■ key for 1.5 seconds or more, turn off the power and release the test mode.

4. CONFIGURATION OF THE TEST MODE

Flow of the test mode:



5. OPERATION OF THE TEST MODE

5-1. Power

5-1-1. Power supply voltage check

This mode is used in case power supply voltage in the state where all power supply lines (1.2 V/1.5 V/1.9 V/2.4 V/3.3 V/VSTBY) are starting is checked.

Checking method:

1. Enter the test mode.
2. Press the > key to display major item, and press the ∧ ∨ key to select the “POWER”.

   LCD display

   POWER

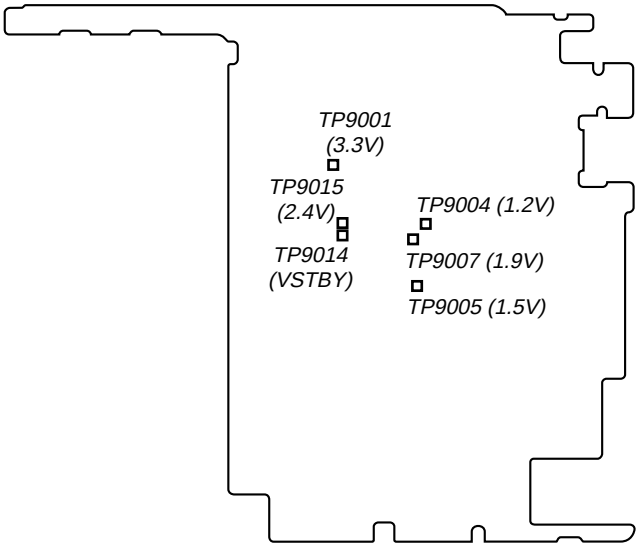
3. Press the > key to display minor item, and press the ∧ ∨ key to select the “V CHK”.

   LCD display

   V CHK

4. Press the ▶II key, “START” is displayed and all power supply lines are started.
   In this state, the power supply voltage of each power supply line can be confirmed by measuring the voltage of the following points.

– MAIN Board (Conductor Side) –



LCD display

START

5. Press the SEARCH/●MENU key, “HD ON” or “HD OFF” is displayed. In this state, each time SEARCH/●MENU key is pressed, hard disk drive power supply ON/OFF switch is performed.

   LCD display

   HD ON

6. Press the ■ key, return to minor item selection screen.

5-1-2. Consumption current (read state) check

This mode is used in case consumption current (read state) in the state where the hard disk drive has booted is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “POWER”.

   LCD display

   POWER

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “A RD”.

   LCD display

   A RD

4. Press the [▶II] key, “READY?” is displayed. In this state, each time [SEARCH/●MENU] key is pressed, EL back light ON/OFF switch is performed.

   LCD display

   READY?

5. Press the [▶II] key, “READ” is displayed and hard disk drive becomes read state.
   After 10 seconds, “FIN” is displayed automatically and read state is completed.

   LCD display

   READ

   ↓

   FIN

6. Press the [■] key, return to minor item selection screen.

5-1-3. Consumption current (write state) check

This mode is used in case consumption current (write state) in the state where the hard disk drive has booted is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “POWER”.

   LCD display

   POWER

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “A WR”.

   LCD display

   A WR

4. Press the [▶II] key, “READY?” is displayed. In this state, each time [SEARCH/●MENU] key is pressed, EL back light ON/OFF switch is performed.

   LCD display

   READY?

5. Press the [▶II] key, “WRITE” is displayed and hard disk drive becomes write state.
   After 10 seconds, “FIN” is displayed automatically and write state is completed.

   LCD display

   WRITE

   ↓

   FIN

6. Press the [■] key, return to minor item selection screen.

5-1-4. Charge current check

This mode is used in case charge current is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “POWER”.

   LCD display

   POWER

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “CHG”.

   LCD display

   CHG

4. Press the [▶II], port control state is displayed. In this state, each time [SEARCH/●MENU] key is pressed, port control state switch is performed.

LCD display	Port control state	
CHG500	IC7001	pin ⑯② SUSPEND: L pin ⑯③ VBUS_LIM: H
CHG100	IC7001	pin ⑯② SUSPEND: L pin ⑯③ VBUS_LIM: L
SUSP	IC7001	pin ⑯② SUSPEND: H pin ⑯③ VBUS_LIM: L

5. Press the [■] key, return to minor item selection screen.

5-2. Audio

The [VOL +] key performs switch of HP/LINE.
While playing the audio track, it's in a repeat state. If [■] key is pressed, it’s stopped.

Setting method of the audio test mode:

1. The data for audio test mode is copied to hard disk drive.
2. Enter the test mode.
3. Press the [>] key to display major item, and press the [∧] [∨] key to select the “AUDIO”.

   LCD display

   AUDIO

4. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “TESTLD”.

   LCD display

   TESTLD

5. Press the [▶II] key, “START” is displayed. Then automatically reboot (DC power supply state) or sleep (battery power supply state).

LCD display

6. After step 5, narrowing-down screen “Artist” is checked and enter the test mode.
Audio test mode (5-2-1 to 5-2-9) is performed in this state.

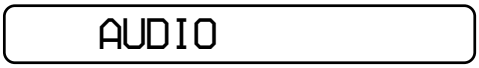
5-2-1. Output check

“1 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “AUDIO”.

LCD display



3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “OUTPUT”.

LCD display

4. Press the [▶II] key, “START” is displayed and “1 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, MUTE ON/OFF switch is performed.

LCD display

5. Press the [■] key, return to minor item selection screen.

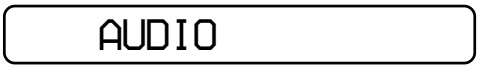
5-2-2. S/N check

“Infinity Zero VOLUME: 27” audio signal is outputted.

Checking method:

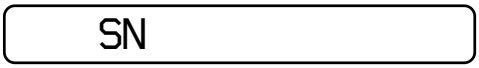
1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “AUDIO”.

LCD display



3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “SN”.

LCD display



4. Press the [▶II] key, “START” is displayed and “Infinity Zero VOLUME: 27” audio signal is outputted.

LCD display

5. Press the [■] key, return to minor item selection screen.

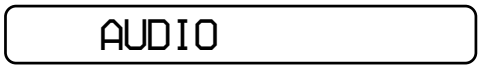
5-2-3. Frequency characteristic check

“20 Hz/20 kHz/100 Hz/10 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

Checking method:

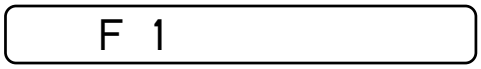
1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “AUDIO”.

LCD display



3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “F 1”.

LCD display

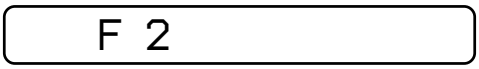


4. Press the [▶II] key, “START” is displayed and “20 Hz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

LCD display

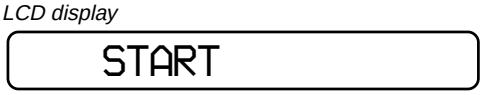
5. Press the [■] key, return to minor item selection screen.
6. Press the [∧] [∨] key to select the “F 2”.

LCD display



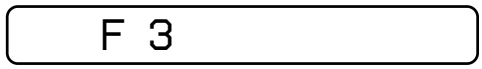
7. Press the [▶II] key, “START” is displayed and “20 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

LCD display



8. Press the [■] key, return to minor item selection screen.
9. Press the [∧] [∨] key to select the “F 3”.

LCD display

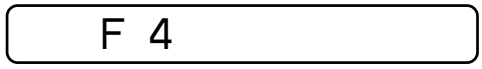


10. Press the [▶II] key, “START” is displayed and “100 Hz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

LCD display

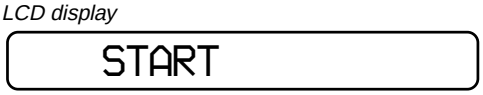
11. Press the [■] key, return to minor item selection screen.
12. Press the [∧] [∨] key to select the “F 4”.

LCD display



13. Press the [▶II] key, “START” is displayed and “10 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

LCD display



14. Press the [■] key, return to minor item selection screen.

5-2-4. Channel separation check

"1 kHz 0 dBs L-ch/1 kHz 0 dBs R-ch VOLUME: 27" audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the "AUDIO".

   LCD display

   AUDIO

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the "SEP LR".

   LCD display

   SEP LR

4. Press the [▶II] key, "START" is displayed and "1 kHz 0 dBs L-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, V-SUR switch is performed.

   LCD display

   START

5. Press the [■] key, return to minor item selection screen.
6. Press the [∧] [∨] key to select the "SEP RL".

   LCD display

   SEP RL

7. Press the [▶II] key, "START" is displayed and "1 kHz 0 dBs R-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, V-SUR switch is performed.

   LCD display

   START

8. Press the [■] key, return to minor item selection screen.

5-2-5. Maximum output check

"1 kHz 0 dBs L-ch/R-ch VOLUME: 30" audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the "AUDIO".

   LCD display

   AUDIO

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the "MAXOUT".

   LCD display

   MAXOUT

4. Press the [▶II] key, "START" is displayed and "1 kHz 0 dBs L-ch/R-ch VOLUME: 30" audio signal is outputted. In this state, Each time [SEARCH/●MENU] key is pressed, AVLS ON/OFF switch is performed.

   LCD display

   START

5. Press the [■] key, return to minor item selection screen

5-2-6. SOUND EQ check

"100 Hz/250 Hz/630 Hz/1.6 kHz/4 kHz/10 kHz –20 dBs L-ch/R-ch VOLUME: 27" audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the "AUDIO".

   LCD display

   AUDIO

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the "EQ 1".

   LCD display

   EQ 1

4. Press the [▶II] key, "START" is displayed and "100 Hz –20 dBs L-ch/R-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, EQ LEVEL ALL3/–3 switch is performed.

   LCD display

   START

5. Press the [■] key, return to minor item selection screen.
6. Press the [∧] [∨] key to select the "EQ 2".

   LCD display

   EQ 2

7. Press the [▶II] key, "START" is displayed and "250 Hz –20 dBs L-ch/R-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, EQ LEVEL ALL3/–3 switch is performed.

   LCD display

   START

8. Press the [■] key, return to minor item selection screen.
9. Press the [∧] [∨] key to select the "EQ 3".

   LCD display

   EQ 3

10. Press the [▶II] key, "START" is displayed and "630 Hz –20 dBs L-ch/R-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, EQ LEVEL ALL3/–3 switch is performed.

    LCD display

    START

11. Press the [■] key, return to minor item selection screen.
12. Press the [∧] [∨] key to select the "EQ 4".

    LCD display

    EQ 4

13. Press the [▶II] key, "START" is displayed and "1.6 kHz –20 dBs L-ch/R-ch VOLUME: 27" audio signal is outputted. In this state, each time [SEARCH/●MENU] key is pressed, EQ LEVEL ALL3/–3 switch is performed.

    LCD display

    START

14. Press the ■ key, return to minor item selection screen.
15. Press the ∧ ∨ key to select the “EQ 5”.

LCD display

EQ 5

16. Press the ►II key, “START” is displayed and “4 kHz –20 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted. In this state, each time SEARCH/●MENU key is pressed, EQ LEVEL ALL3/–3 switch is performed.

LCD display

START

17. Press the ■ key, return to minor item selection screen.
18. Press the ∧ ∨ key to select the “EQ 6”.

LCD display

EQ 6

19. Press the ►II key, “START” is displayed and “10 kHz –20 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted. In this state, each time SEARCH/●MENU key is pressed, EQ LEVEL ALL3/–3 switch is performed.

LCD display

START

20. Press the ■ key, return to minor item selection screen.

5-2-7. Digital sound preset check

“100 Hz/10 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the > key to display major item, and press the ∧ ∨ key to select the “AUDIO”.

LCD display

AUDIO

3. Press the > key to display minor item, and press the ∧ ∨ key to select the “DSP 1”.

LCD display

DSP 1

4. Press the ►II key, “START” is displayed and “100 Hz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted. In this state, each time SEARCH/●MENU key is pressed, Base +3/–4/off switch is performed.

LCD display

START

5. Press the ■ key, return to minor item selection screen.
6. Press the ∧ ∨ key to select the “DSP 2”.

LCD display

DSP 2

7. Press the ►II key, “START” is displayed and “10 kHz 0 dBs L-ch/R-ch VOLUME: 27” audio signal is outputted. In this state, each time SEARCH/●MENU key is pressed, Treble +3/–4/off switch is performed.

LCD display

START

8. Press the ■ key, return to minor item selection screen.

5-2-8. BEEP check

BEEP sound is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the > key to display major item, and press the ∧ ∨ key to select the “AUDIO”.

LCD display

AUDIO

3. Press the > key to display minor item, and press the ∧ ∨ key to select the “BEEP”.

LCD display

BEEP

4. Press the ►II key, “START” is displayed and BEEP sound is outputted.

LCD display

START

5. Press the ■ key, return to minor item selection screen.

5-2-9. Sound pressure regulation level check

“1 kHz 0 dBs L-ch/R-ch VOLUME: 30” audio signal is outputted.

Checking method:

1. Enter the audio test mode.
2. Press the > key to display major item, and press the ∧ ∨ key to select the “AUDIO”.

LCD display

AUDIO

3. Press the > key to display minor item, and press the ∧ ∨ key to select the “SPL”.

LCD display

SPL

4. Press the ►II key, “START” is displayed and “1 kHz 0 dBs L-ch/R-ch VOLUME: 30” audio signal is outputted.

LCD display

START

5. Press the ■ key, return to minor item selection screen.

5-3. Others

5-3-1. G-sensor check

X/Y/Z-axis direction is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD di LCD displaysplay

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “G TEST”.

   LCD display

   G TEST

4. Press the [►II] key, X-axis direction is displayed.

   LCD display

   X: ✱✱✱

   ✱✱✱: A/D value (hexadecimal)

Note: “NG**”** is displayed when the G-sensor has broken (press the [■] key, return to minor item selection screens).

LCD display

NG

5. Press the [►II] key, Y-axis direction is displayed (press the [■] key, return to minor item selection screens).

   LCD display

   Y: ✱✱✱

   ✱✱✱: A/D value (hexadecimal)

6. Press the [►II] key, Z-axis direction is displayed (press the [■] key, return to minor item selection screens).

   LCD display

   Z: ✱✱✱

   ✱✱✱: A/D value (hexadecimal)

7. Press the [■] key, return to minor item selection screen.

5-3-2. Clock check

Clock operation is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “CLOCK”.

   LCD display

   CLOCK

4. Press the [►II] key, “START” is displayed. Then “OK” or “NG” is displayed automatically.

   LCD display

   START

   ↓

   OK

5. Press the [■] key, return to minor item selection screen.

5-3-3. Key check

LCD display corresponding to the pushed key is performed.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “KEY CH”.

   LCD display

   KEY CH

4. Press the [►II] key, “START” is displayed and LCD display corresponding to the pushed key is performed.
   Press on all the keys of main unit displays “SET OK”.
   Press on all the keys of remote commander displays “RMC OK”.

Key	LCD display
[►II]	PLAY
[■]	STOP
[SEARCH/●MENU]	SEARCH
[>]	FF
[<]	REW
[∧]	UP
[∨]	DOWN
[VOL +]	VOL+
[VOL –]	VOL–

5. Switch-on the [HOLD] switch. Then switch-off the [HOLD] switch, “FMTOK?” is displayed.

   LCD display

   FMTOK?

6. Press the [►II] key, format of hard disk drive is performed (press the [■] key, return to minor item selection screens). Then “OK” or “NG” is displayed automatically.
7. Press the [■] key, return to minor item selection screen.

5-3-4. LCD display check

LCD display is checked.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “LCD 1”.

   LCD display

   LCD 1

4. Press the [►II] key, LCD all segments of main unit and remote commander are turned on.
5. Press the [■] key to display minor item, and press the [∧] [∨] key to select the “LCD 2”.

   LCD display

   LCD 2

6. Press the [►II] key, LCD all segments of main unit and remote commander are turned off.
7. Press the [■] key to display minor item, and press the [∧] [∨] key to select the “LCD 3”.

   LCD display

   LCD 3

8. Press the [►II] key, monochrome lattice is displayed on the LCD of main unit.
9. Press the [■] key to display minor item, and press the [∧] [∨] key to select the “LCD 4”.

   LCD display

   LCD 4

10. Press the [►II] key, monochrome lattice (reverse version of step 8) is displayed on the LCD of main unit.
11. Press the [■] key, return to minor item selection screen.

5-3-5. G-sensor adjustment

X/Y/Z-axis direction is adjusted.

Adjustment method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “G CLB”.

   LCD display

   G CLB

4. Press the [►II] key, “+X” is displayed. Main unit is fixed so that ① of fig.1 may become downward and press the [►II] key.

   LCD display

   +X

5. “–X” is displayed. Main unit is fixed so that ② of fig.1 may become downward and press the [►II] key.

   LCD display

   –X

6. “+Y” is displayed. Main unit is fixed so that ③ of fig.1 may become downward and press the [►II] key.

   LCD display

   +Y

7. “–Y” is displayed. Main unit is fixed so that ④ of fig.1 may become downward and press the [►II] key.

   LCD display

   –Y

8. “+Z” is displayed. Main unit is fixed so that ⑤ of fig.1 may become downward and press the [►II] key.

   LCD display

   +Z

9. “–Z” is displayed. Main unit is fixed so that ⑥ of fig.1 may become downward and press the [►II] key.

   LCD display

   –Z

10. “CALIB” is displayed. Press the [►II] key, G-sensor is adjusted. Then “FIN”, “DAT NG” or “SEN NG” is displayed automatically.

    LCD display

    CALIB

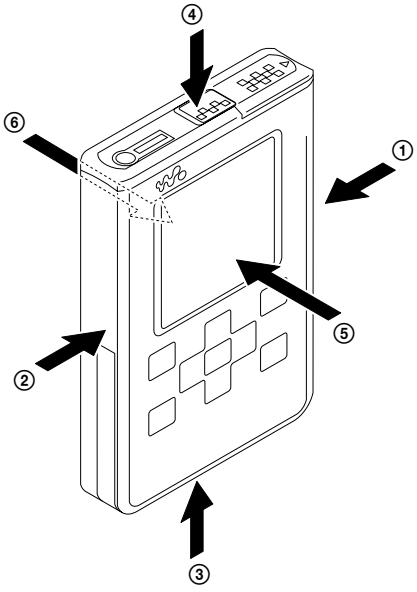
    ↓

    FIN

    FIN : adjusted normally.
    DAT NG : The data for performing a calibration is faulty.
    SEN NG : The value acquired from the G-sensor is faulty.

11. Press the [■] key, return to minor item selection screen.

Fig.1 Axis direction of G-sensor adjustment



5-3-6. G-sensor adjustment check

This mode checks that G-sensor adjustment is performed or not performed.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “G CHK”.

   LCD display

   G CHK

4. Press the [▶II] key, “START” is displayed. Then “OK” or “YET” is displayed automatically.

   LCD display

   START
   ↓
   OK

5. Press the [■] key, return to minor item selection screen.

5-3-7. Hard disk drive format

This mode is used when performing the format of hard disk drive.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “FORMAT”.

   LCD display

   FORMAT

4. Press the [▶II] key, “START” is displayed and format of hard disk drive is performed. After performing format, “OK” or “NG” is displayed automatically.

   LCD display

   START
   ↓
   OK

5. Press the [■] key, return to minor item selection screen.

5-3-8. Hard disk drive sector read

Sector of hard disk drive is read.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “SC RD1” or “SC RD2” or “SC RDF”.

   LCD display

   SC RD1

4. Press the [▶II] key, “READY?” is displayed .

   LCD display

   READY?

5. Press the [▶II] key, “READ” is displayed and first 1/3 sector (SC RD1) or last 2/3 sector (SC RD2) or all sector (SC RDF) of hard disk drive is read. This operation takes about 50 minutes (SC RD1) or 100 minutes (SC RD2) or 150 minutes (SC RDF). Then the number of error sector is displayed automatically.

   LCD display

   READ
   ↓
   ******

   ****** *: number of error sector*

6. Press the [■] key, return to minor item selection screen.

5-3-9. Contrast setting

Contrast table setting value switch is performed.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “CNTRST”.

   LCD display

   CNTRST

4. Press the [▶II] key, contrast table setting value is displayed. In this state, each time [SEARCH/●MENU] key is pressed, contrast table setting value (–3 to +3) switch is performed.

   LCD display

   +0

5. When [▶II] key is pressed setting is reflected.
   When [■] key is pressed, setting is not reflected.
   In both cases, return to minor item selection screen.

5-3-10. Destination setting

Setting the destination.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “DEST”.

   LCD display

   DEST

4. Press the [▶II] key. Press the [SEARCH/●MENU] key, destination (JP/US/EU/GA*) is selected.
   Press the [▶II] key, destination is entered.
   Press the [■] key when canceling.

Destination	Default language	Sound pressure regulation
JP	Japanese	OFF
US	English	OFF
EU	English	ON
GA*	English	OFF

* Destination of GA can be chosen only when IC1102 is mounted on the MAIN board and font data is contained in the IC1102 (IC1102 is mounted only E, Taiwan, Korean, Chinese and Tourist models).
There is a possibility that data is not correctly written when GA is not displayed though IC1102 is mounted.

5-3-11. Language setting

Setting the language.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “LANG”.

   LCD display

   LANG

4. Press the [▶II] key. Press the [SEARCH/●MENU] key, language (JAP/ENG/FRE/GER/ITA/SPA/S_CNA*/T_CNA*/KOR*) is selected.
   Press the [▶II] key, language is entered.
   Press the [■] key when canceling.
   * Language of S_CNA/T_CNA/KOR can be chosen only when distination is GA.
   There is a possibility that data is not correctly whitten when S_CNA/T_CNA/KOR are not displayed though destination is GA.

5-3-12. Sound pressure regulation setting

Setting the sound pressure regulation.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “SP SET”.

   LCD display

   SP SET

4. Press the [▶II] key. Press the [SEARCH/●MENU] key, sound pressure regulation ON/OFF is selected. Press the [▶II] key, destination is entered.
   Press the [■] key when canceling.

5-3-13. Factory setting

Factory setting is performed.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “SHIP”.

   LCD display

   SHIP

4. Press the [▶II] key , factory setting is performed. After the setting, “FIN” is displayed.

   LCD display

   FIN

5. Press the [■] key, return to minor item selection screen.

5-3-14. SDRAM check

This mode is used for the check of SDRAM.

Checking method:

1. Enter the test mode.
2. Press the [>] key to display major item, and press the [∧] [∨] key to select the “OTHERS”.

   LCD display

   OTHERS

3. Press the [>] key to display minor item, and press the [∧] [∨] key to select the “RAMCHK”.

   LCD display

   RAMCHK

4. Press the [▶II] key, “START” is displayed and SDRAM is checked. This operation takes about 20 seconds. After checked, “OK” or “NG” is displayed automatically.

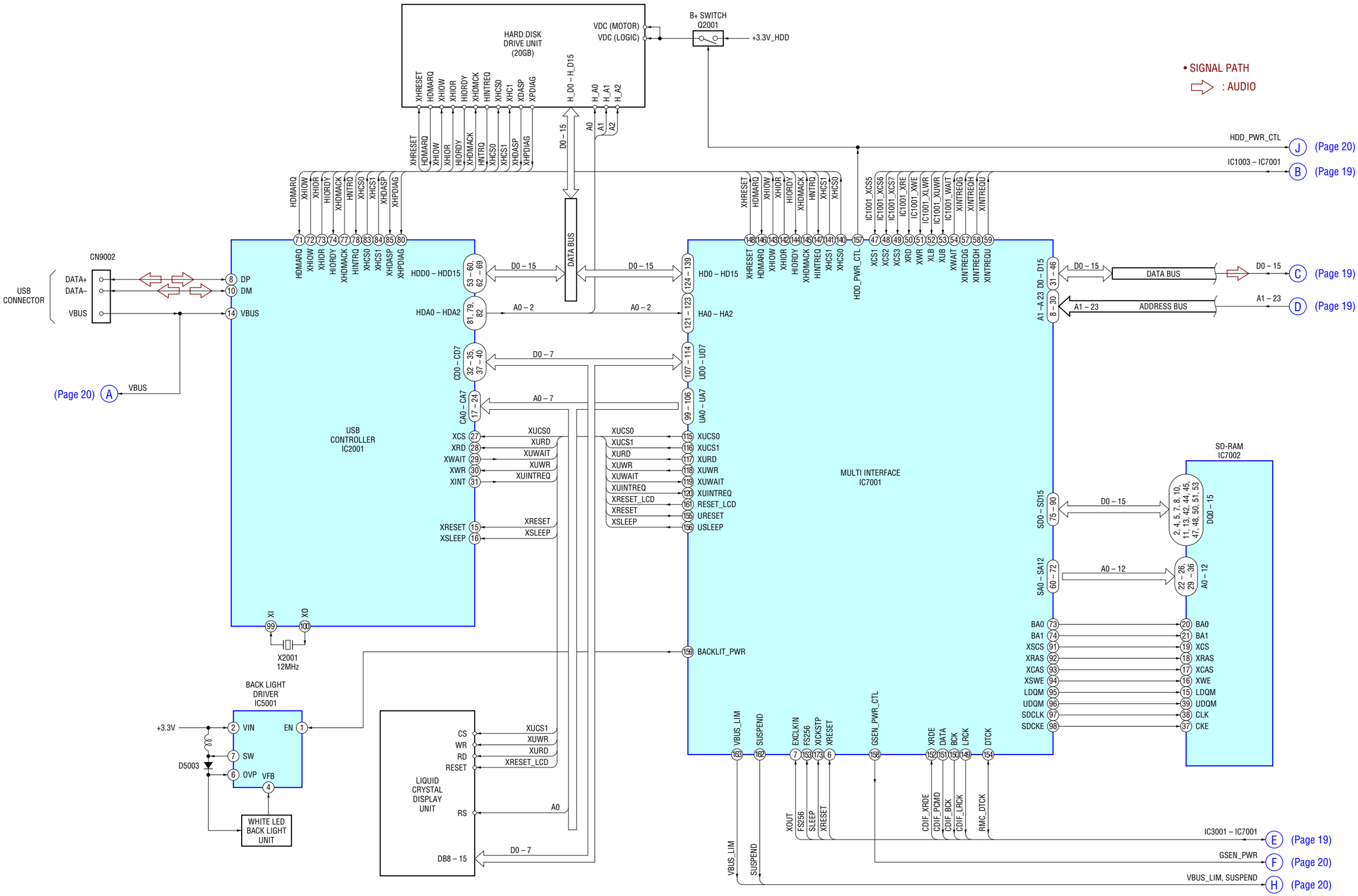
   LCD display

   START
   ↓
   OK

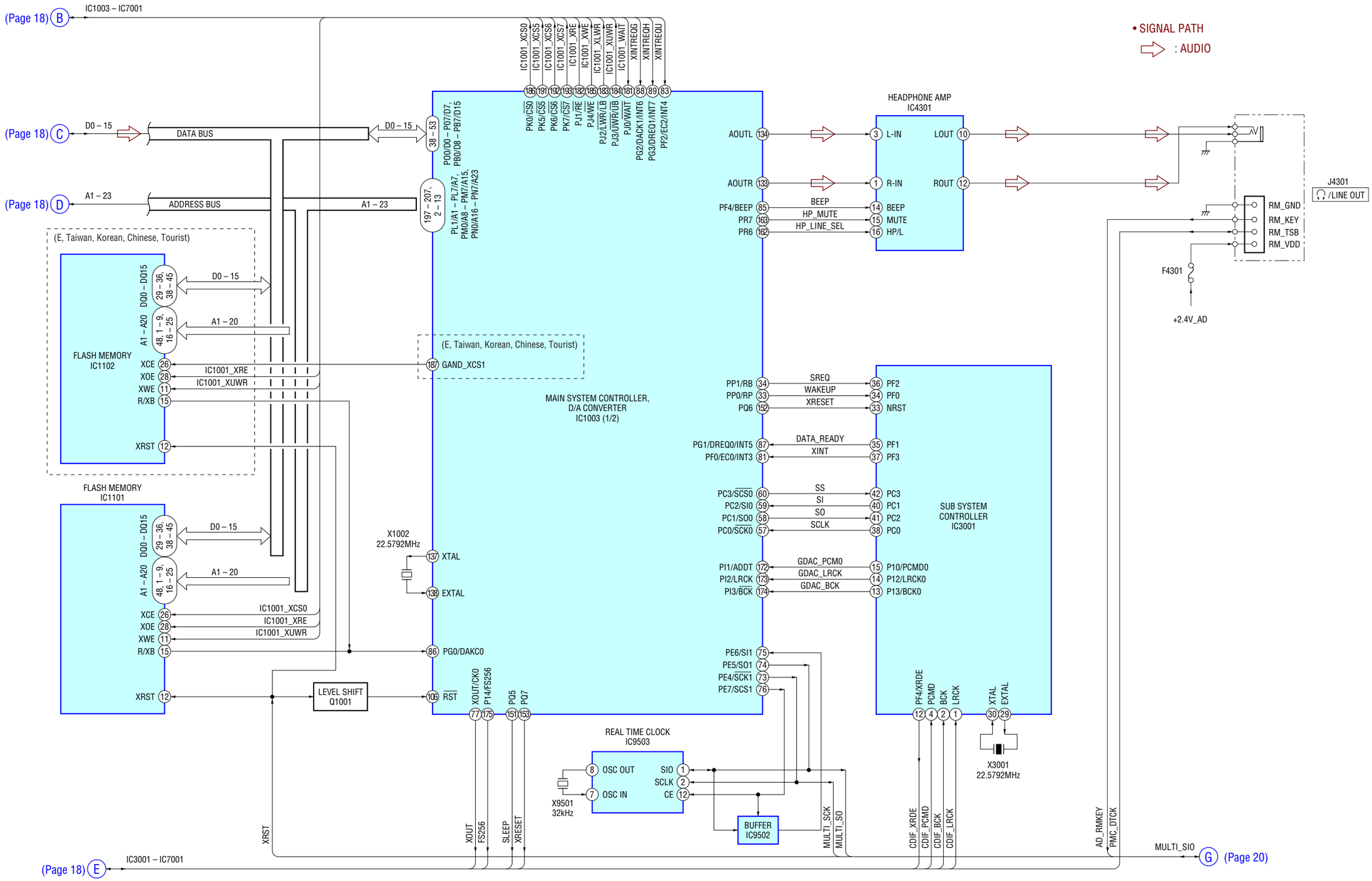
5. Press the [■] key, return to minor item selection screen.

SECTION 5
DIAGRAMS

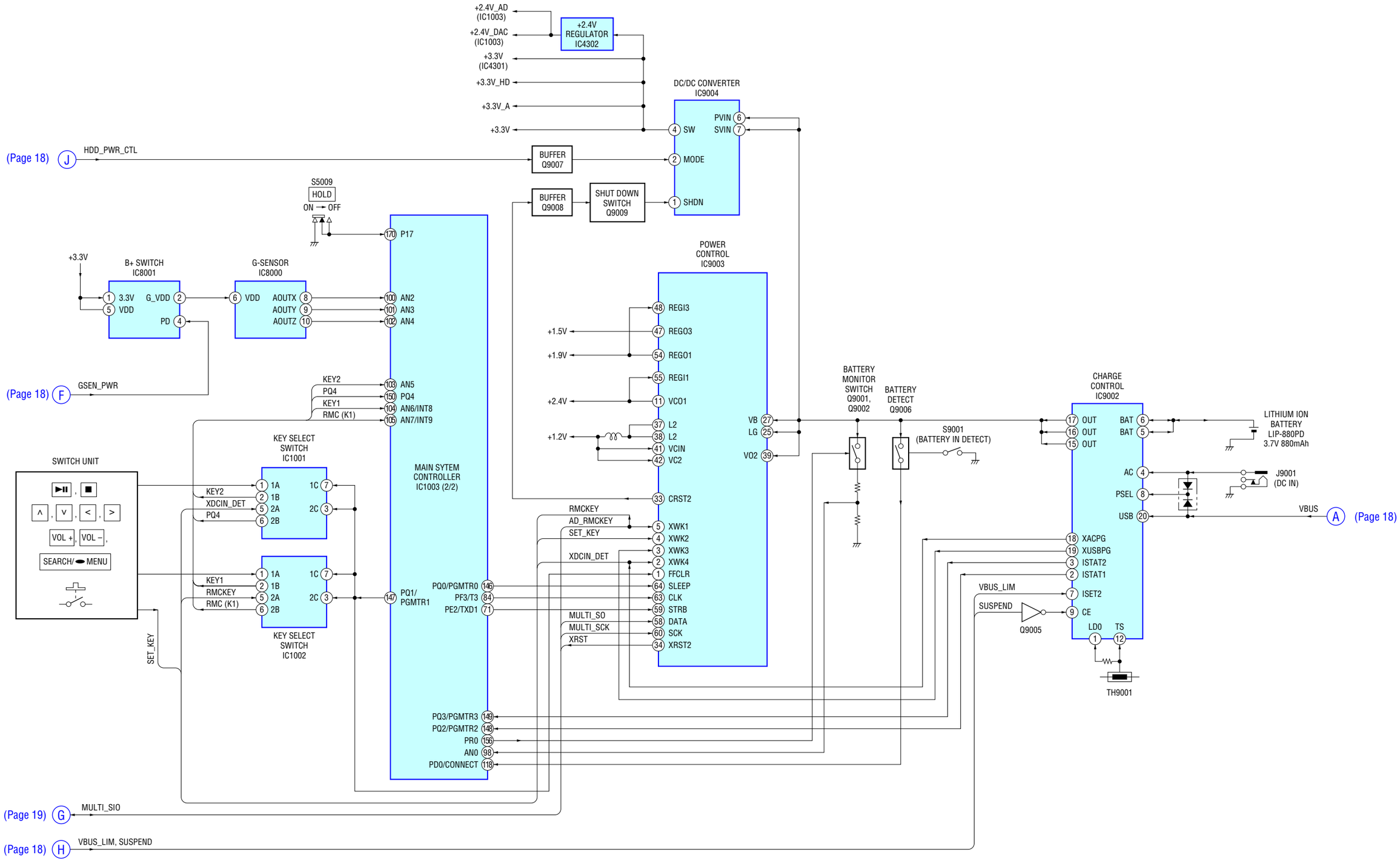
5-1. BLOCK DIAGRAM – MAIN Section (1/2) –



5-2. BLOCK DIAGRAM – MAIN Section (2/2) –



5-3. BLOCK DIAGRAM – KEY/POWER SUPPLY Section –



• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▭ : Pattern from the side which enables seeing.

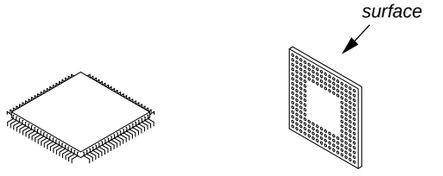
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.

- MAIN and HDD boards are multi-layer printed board. However, the patterns of intermediate-layer have not been included in diagram.

* Replacement of IC1003, 2001, 3001, 7001, 7002 and 9003 used in this set requires a special tool.

- Lead Layouts



Lead layout of conventional IC CSP (chip size package)

- When IC1101 and IC1102 (IC1102 is mounted only E, Taiwan, Korean and Tourist models) on the MAIN board are damaged, exchange the new MAIN board for the MAIN board which IC damaged.

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

原理图和零件清单中标有⚠记号的零部件、或带有⚠记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

- ——— : B+ Line.
- Power voltage is dc 4.2 V and fed with regulated dc power supply from TP9010 and TP9011 on the MAIN board.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAYBACK
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
- Abbreviation
  CH : Chinese model
  JE : Tourist model
  KR : Korean model
  TW : Taiwan model

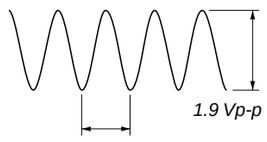
* Replacement of IC1003, 2001, 3001, 7001, 7002 and 9003 used in this set requires a special tool.

- The voltage and waveform of CSP (chip size package) cannot be measured, because its lead layout is different from that of conventional IC.
- When IC1101 and IC1102 (IC1102 is mounted only E, Taiwan, Korean, Chinese and Tourist models) on the MAIN board are damaged, exchange the new MAIN board for the MAIN board which IC damaged.

• Waveform

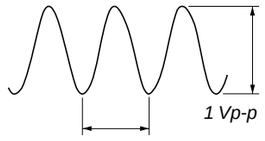
– MAIN Board –

① **X1002**



500 mV/DIV, 20 ns/DIV

② **IC9503 ⑦ (OSCIN)**

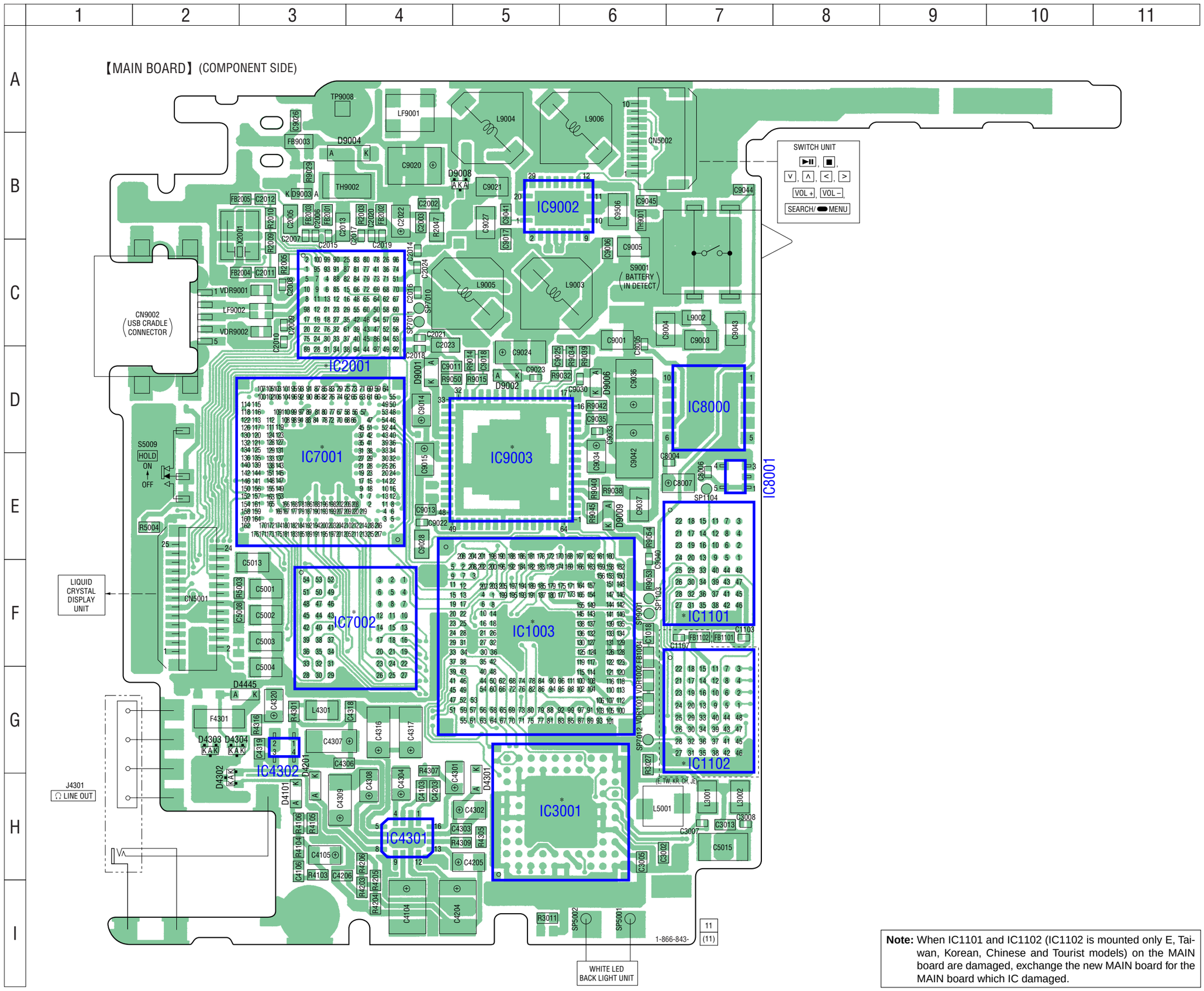


200 mV/DIV, 10 µs/DIV

5-4. PRINTED WIRING BOARD – MAIN board (Component Side) – :Uses unleaded solder.

- **Semiconductor Location**

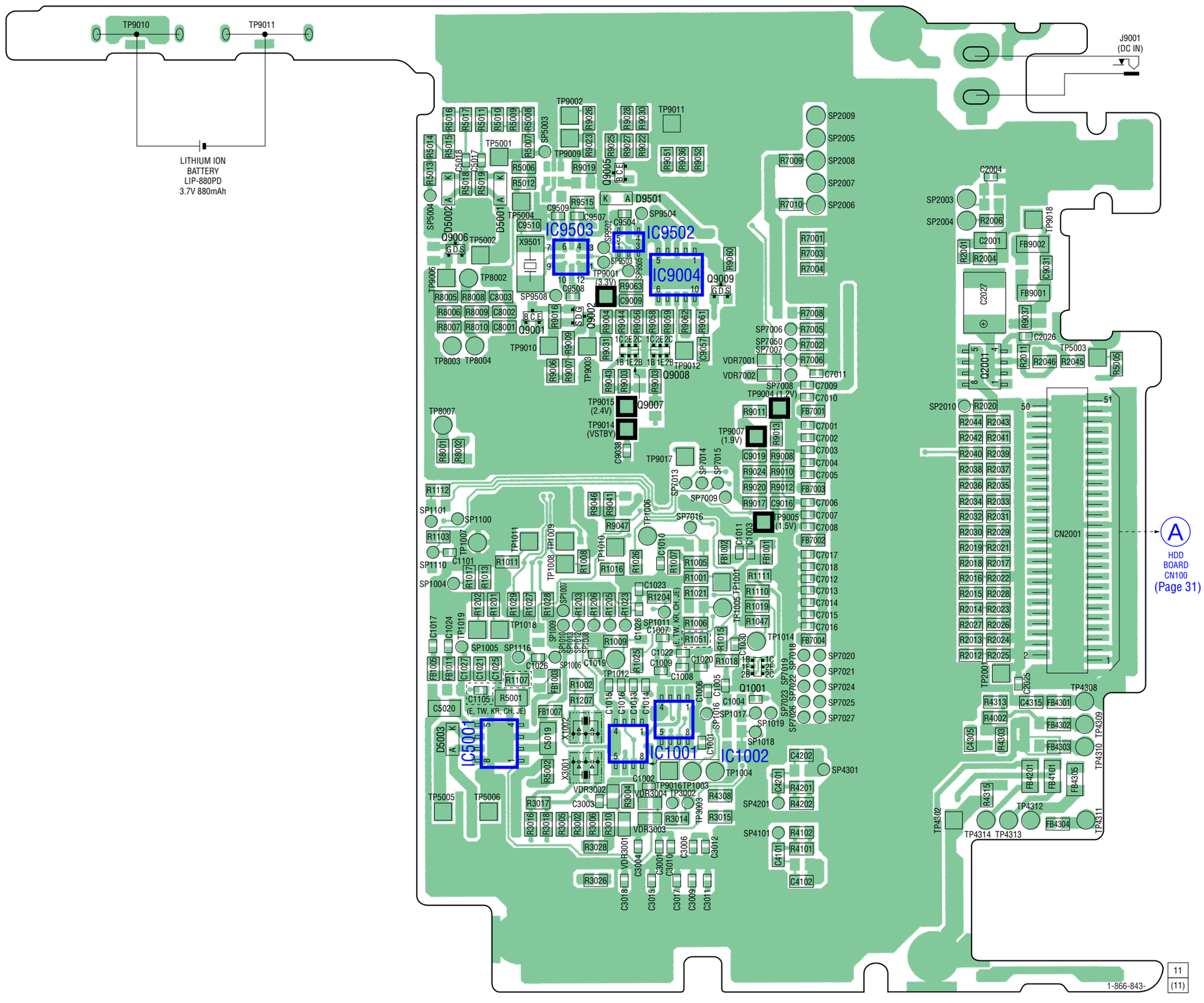
Ref. No.	Location
D4101	H-3
D4201	H-3
D4301	H-5
D4302	H-2
D4303	G-2
D4304	G-2
D4445	G-3
D9001	D-4
D9002	D-5
D9003	B-3
D9004	B-4
D9006	C-6
D9008	B-5
D9009	E-6
IC1003	F-5
IC1101	F-7
IC1102	G-7
IC2001	C-4
IC3001	H-6
IC4301	H-4
IC4302	G-3
IC7001	E-3
IC7002	F-4
IC8000	D-7
IC8001	E-7
IC9002	B-5
IC9003	E-5



Note: When IC1101 and IC1102 (IC1102 is mounted only E, Taiwan, Korean, Chinese and Tourist models) on the MAIN board are damaged, exchange the new MAIN board for the MAIN board which IC damaged.

5-5. PRINTED WIRING BOARD – MAIN Board (Conductor Side) – :Uses unleaded solder.

【MAIN BOARD】(CONDUCTOR SIDE)

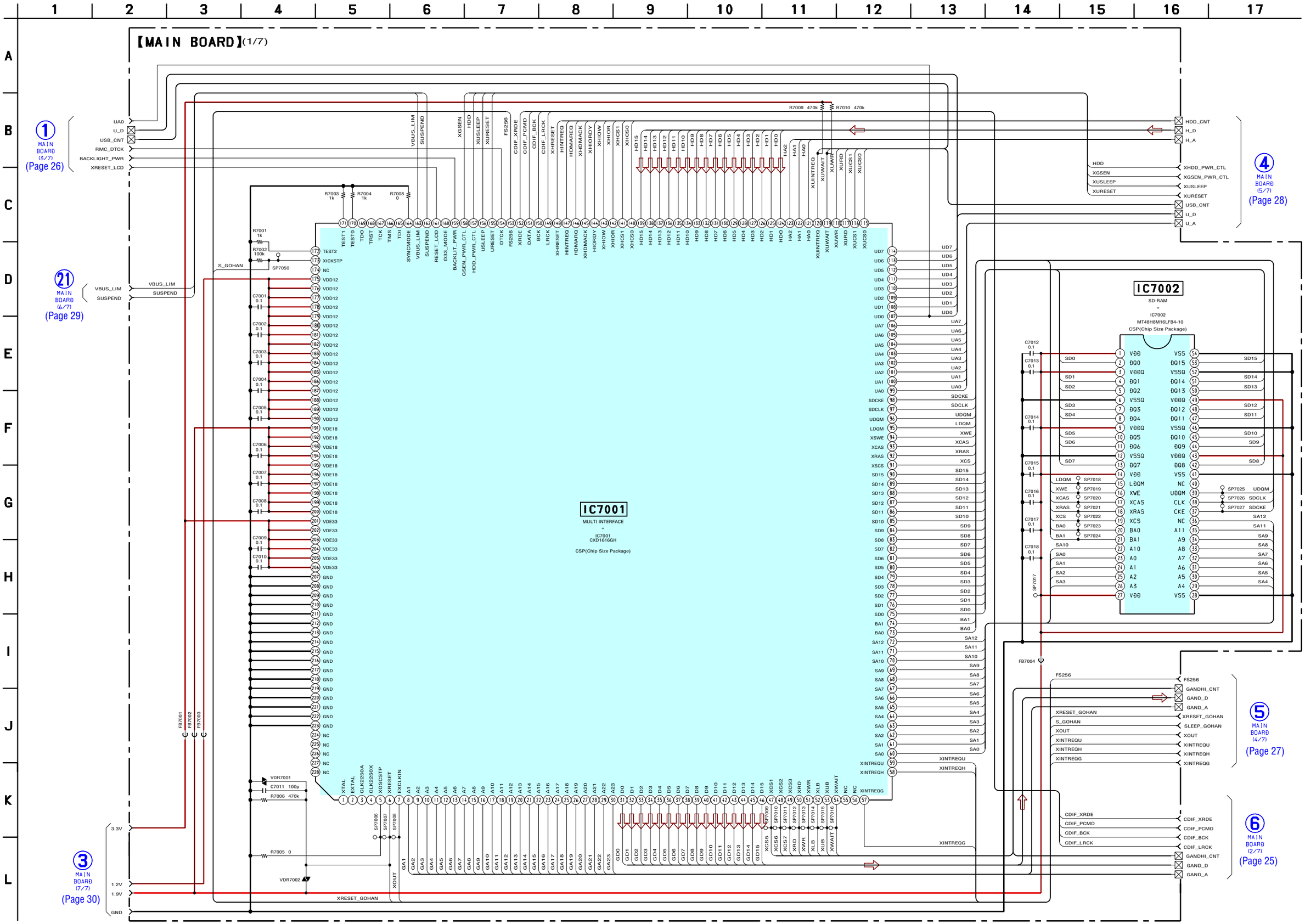


- **Semiconductor Location**

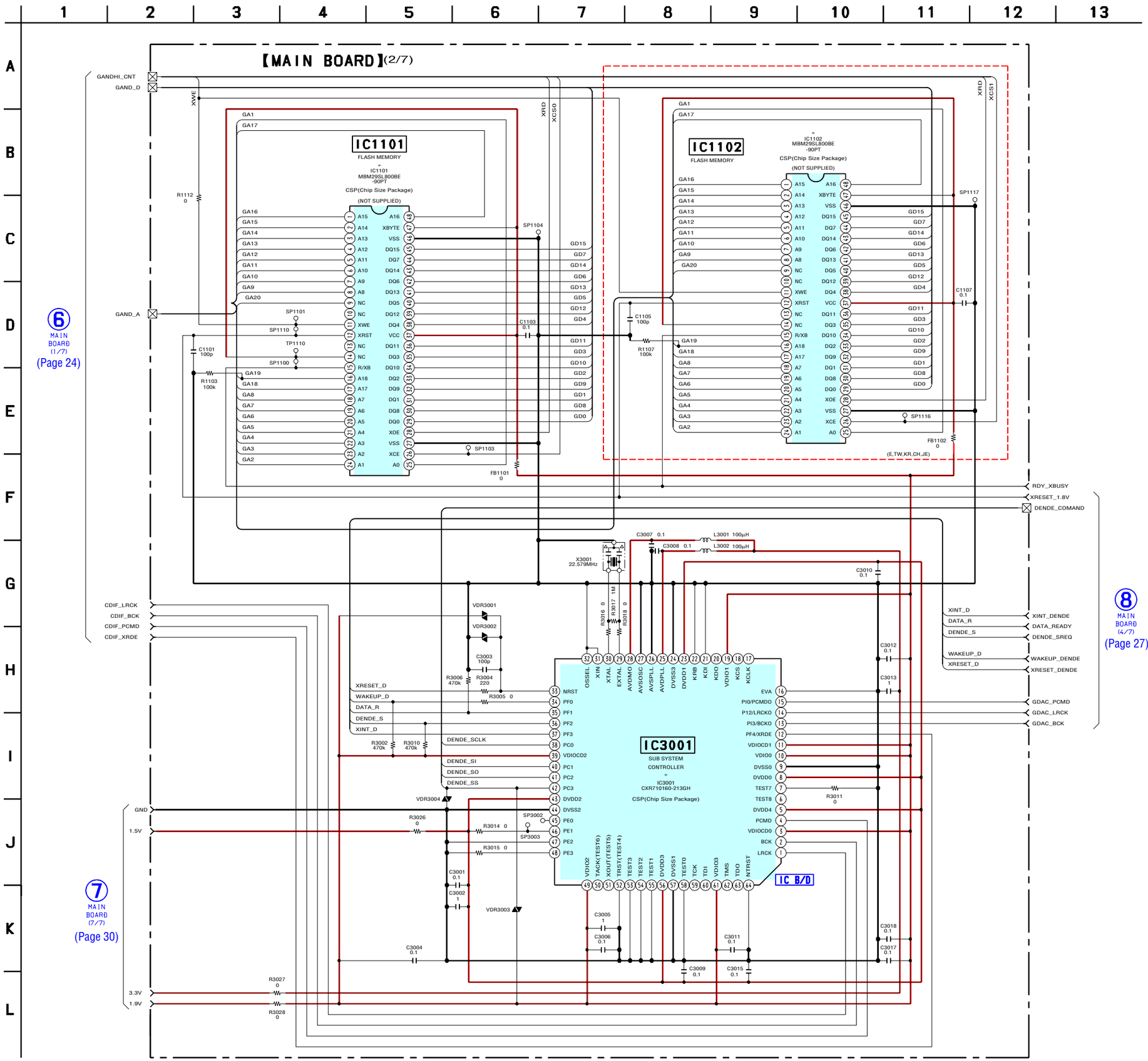
Ref. No.	Location
D5001	C-6
D5002	C-6
D5003	G-6
D9501	C-7
IC1001	G-7
IC1002	G-7
IC5001	G-6
IC9004	C-7
IC9502	C-7
IC9503	C-7
Q1001	G-8
Q2001	D-10
Q9001	D-6
Q9002	D-7
Q9005	C-7
Q9006	C-6
Q9007	D-7
Q9008	D-7
Q9009	C-8

5-6. SCHEMATIC DIAGRAM – MAIN Section (1/7) –

• See page 35 for IC Pin Function Description.

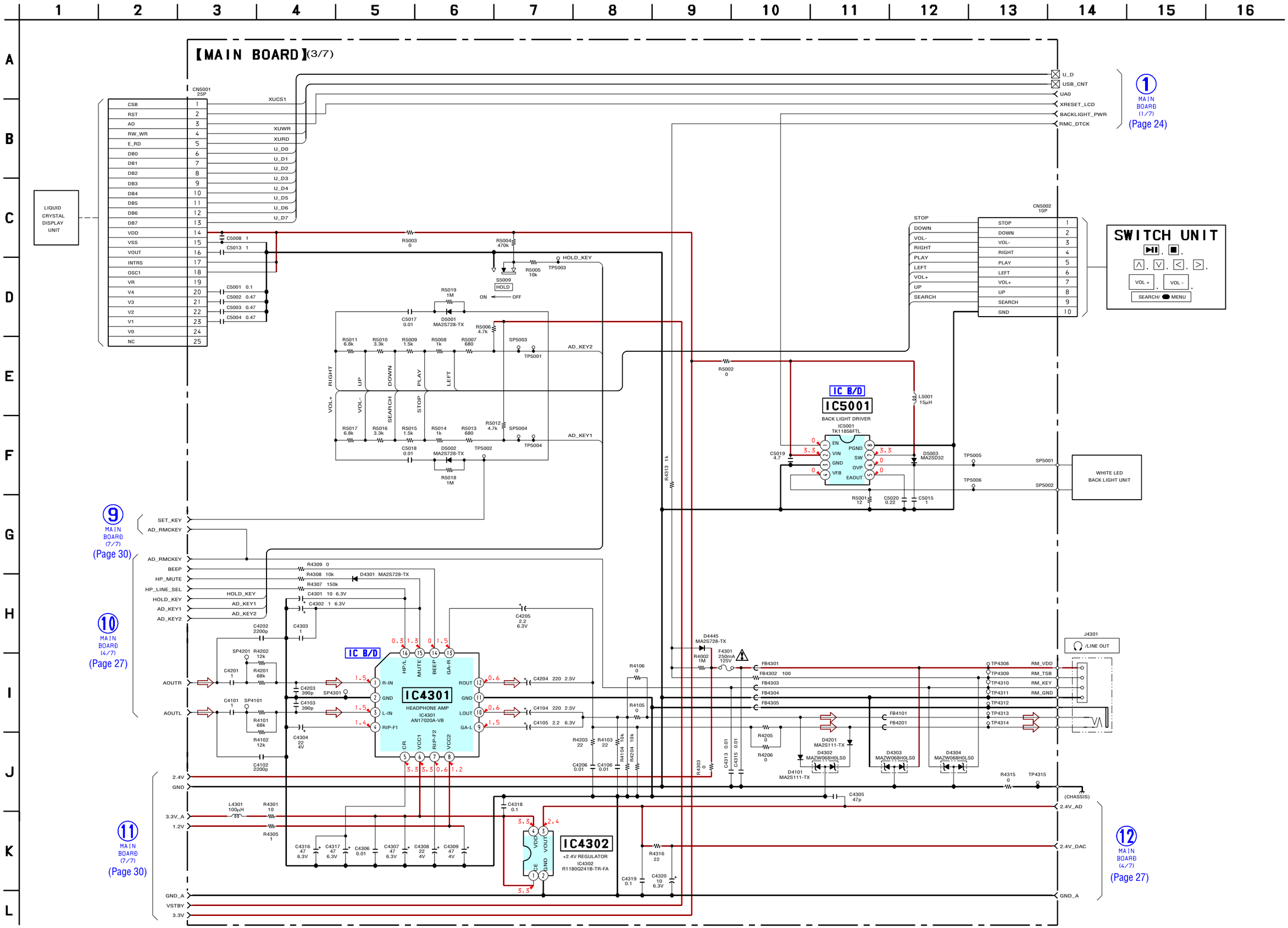


5-7. SCHEMATIC DIAGRAM – MAIN Section (2/7) – • See page 32 for IC Block Diagram.

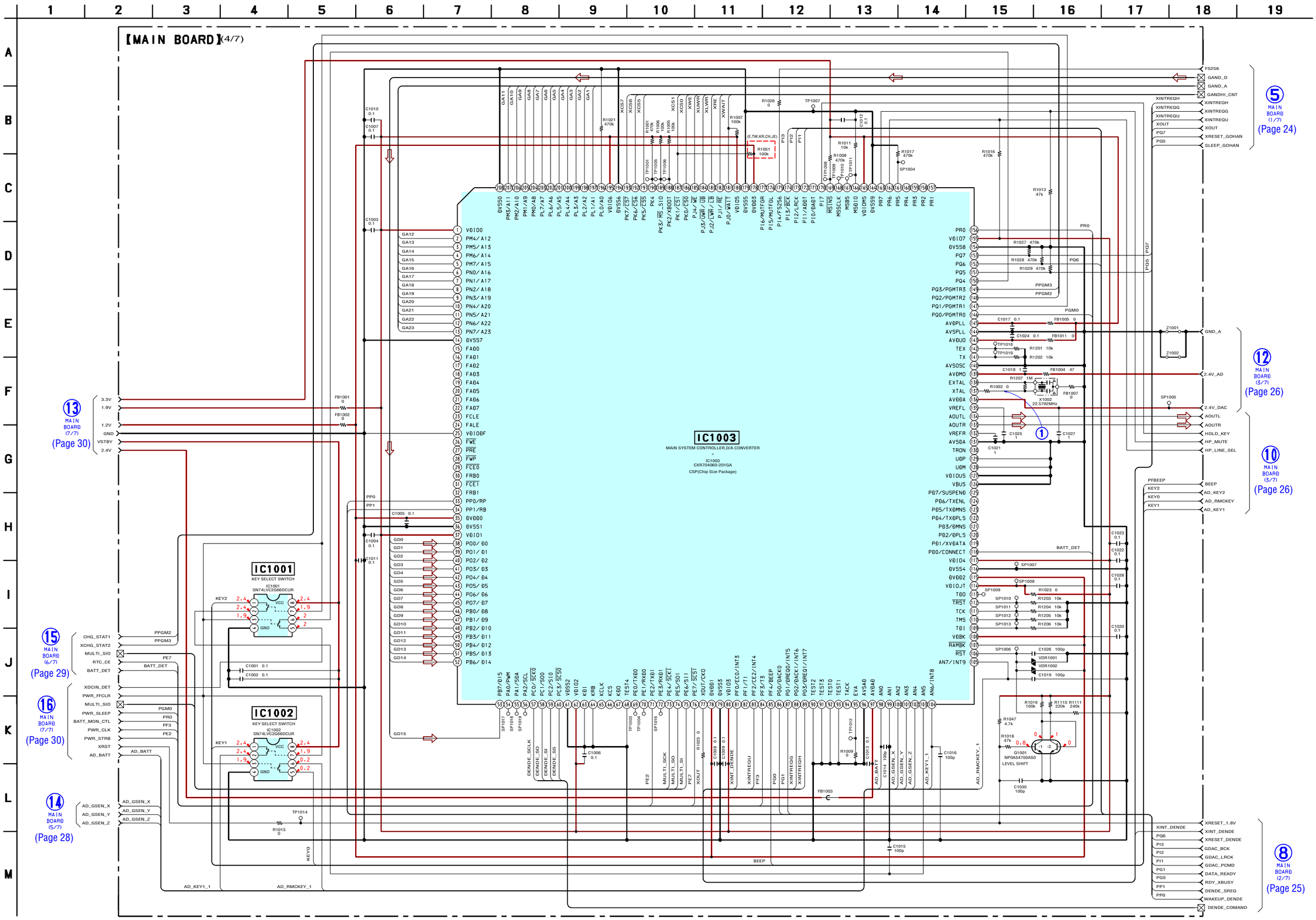


Note: When IC1101 and IC1102 (IC1102 is mounted only E, Taiwan, Korean, Chinese and Tourist models) on the MAIN board are damaged, exchange the new MAIN board for the MAIN board which IC damaged.

5-8. SCHEMATIC DIAGRAM – MAIN Section (3/7) – • See page 32 for IC Block Diagrams.

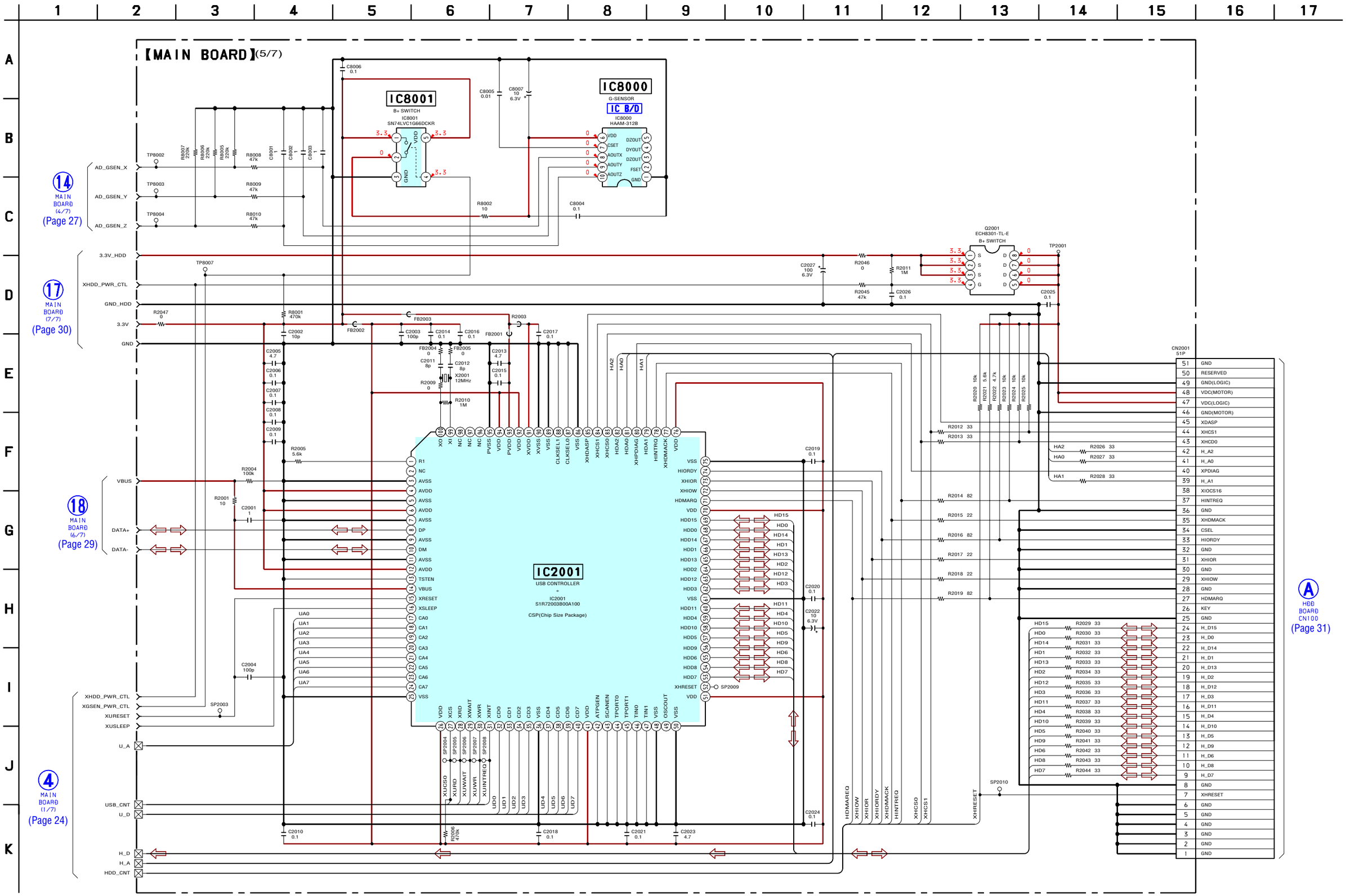


5-9. SCHEMATIC DIAGRAM – MAIN Section (4/7) – • See page 21 for Waveform. • See page 35 for IC Pin Function Description.



5-10. SCHEMATIC DIAGRAM – MAIN Section (5/7) –

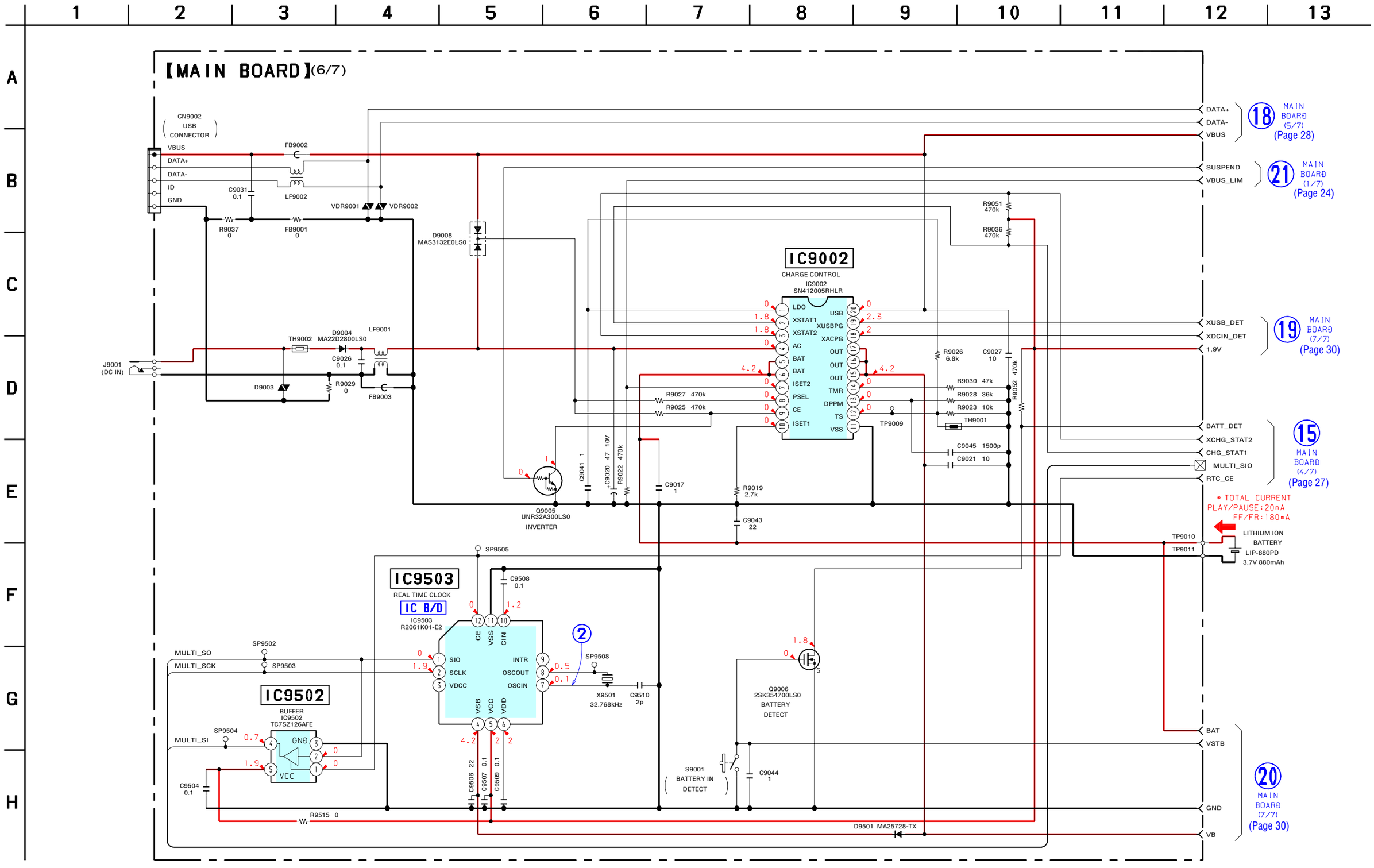
• See page 32 for IC Block Diagram. • See page 35 for IC Pin Function Description.



51	GND	
50	RESERVED	
49	GND(LOGIC)	
48	VDC(MOTOR)	
47	VDC(LOGIC)	
46	GND(MOTOR)	
45	XDASP	
44	XHCS1	
43	XHCD0	
42	H_A2	
41	H_A0	
40	XPDIAG	
39	H_A1	
38	XIOCS16	
37	HINTREQ	
36	GND	
35	XHDMACK	
34	CSEL	
33	HIORDY	
32	GND	
31	XHIOR	
30	GND	
29	XHIOW	
28	GND	
27	HDMARQ	
26	KEY	
25	GND	
24	H_D15	
23	H_D0	
22	H_D14	
21	H_D1	
20	H_D13	
19	H_D2	
18	H_D12	
17	H_D3	
16	H_D11	
15	H_D4	
14	H_D10	
13	H_D5	
12	H_D9	
11	H_D6	
10	H_D8	
9	H_D7	
8	GND	
7	XHRESET	
6	GND	
5	GND	
4	GND	
3	GND	
2	GND	
1	GND	

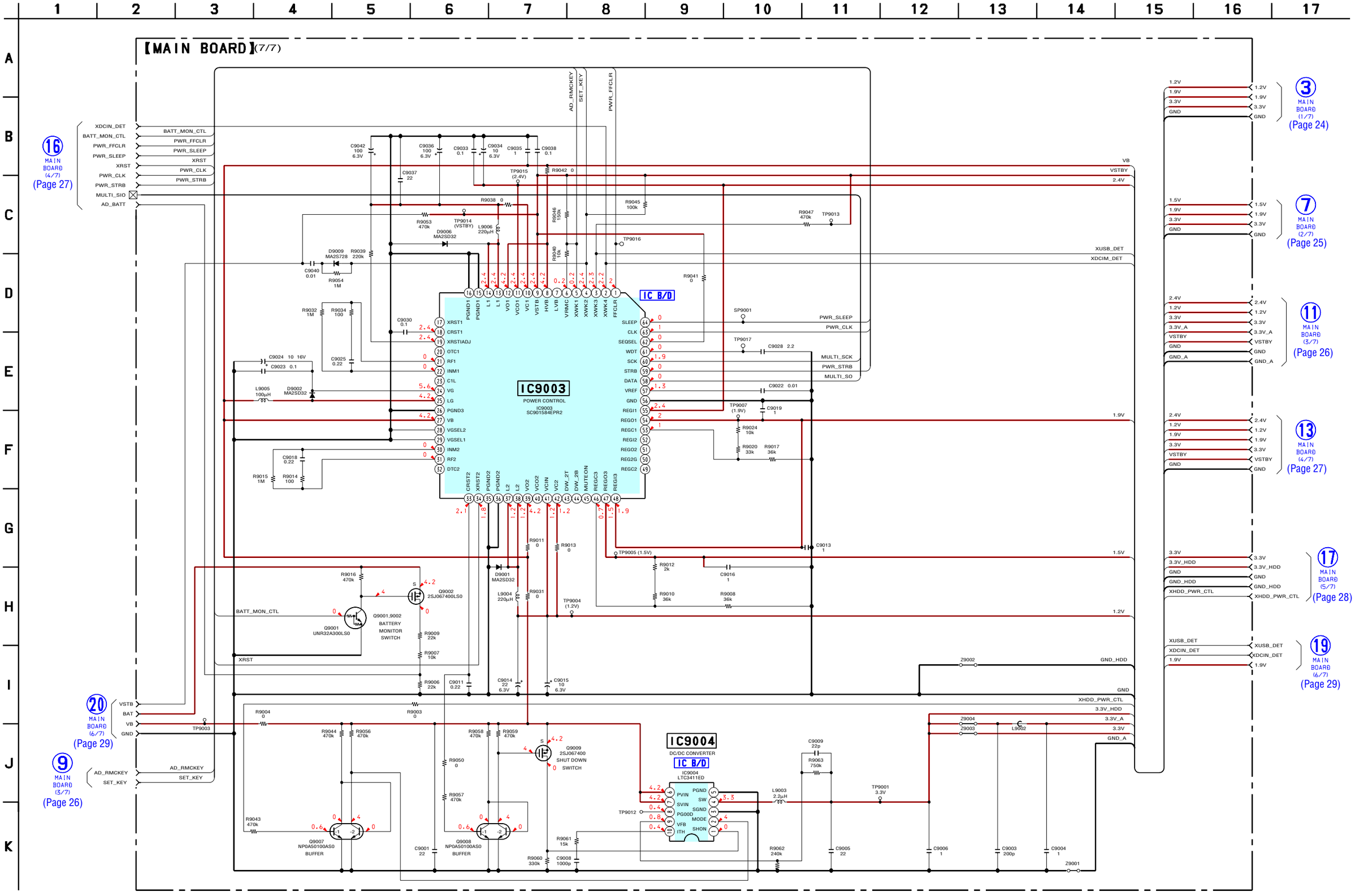
5-11. SCHEMATIC DIAGRAM – MAIN Section (6/7) –

• See page 21 for Waveform. • See page 32 for IC Block Diagrams. • See page 35 for IC Pin Function Description.



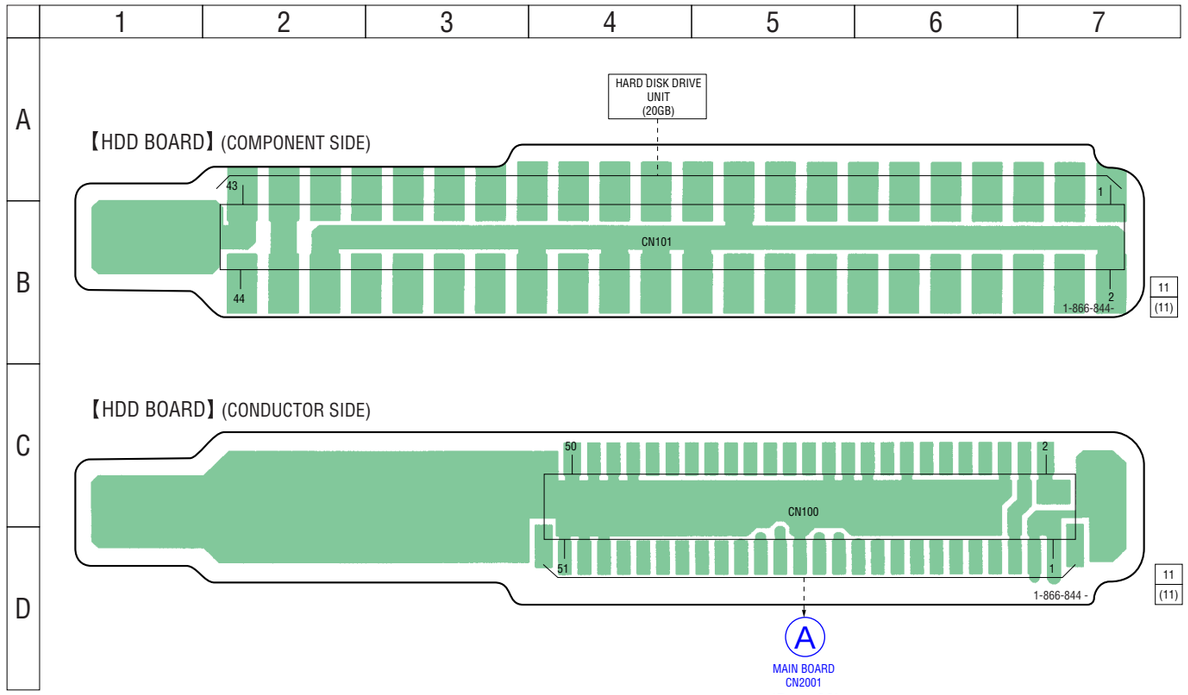
5-12. SCHEMATIC DIAGRAM – MAIN Section (7/7) –

• See page 32 for IC Block Diagrams.

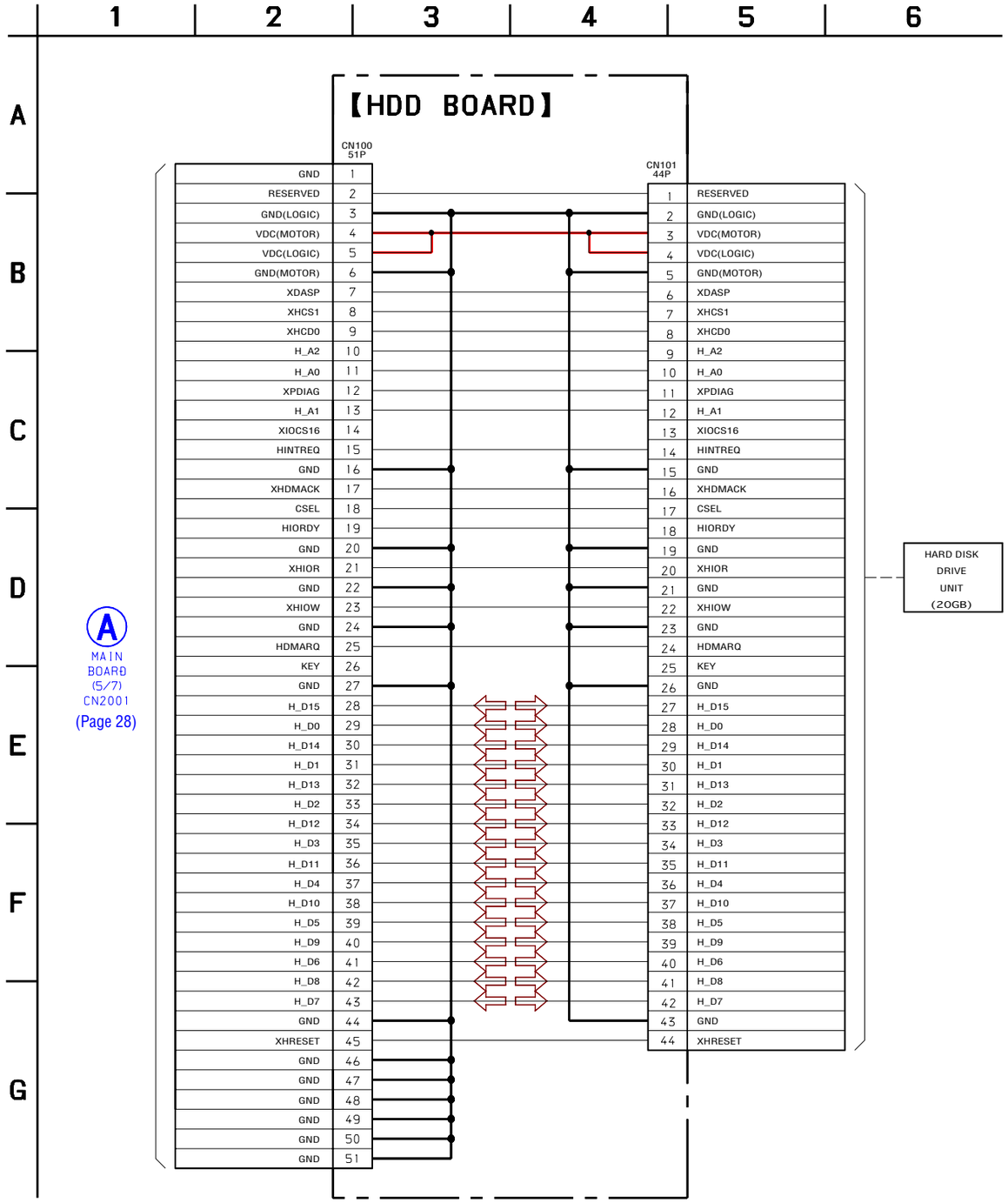


5-13. PRINTED WIRING BOARD – HDD Section –

:Uses unleaded solder.



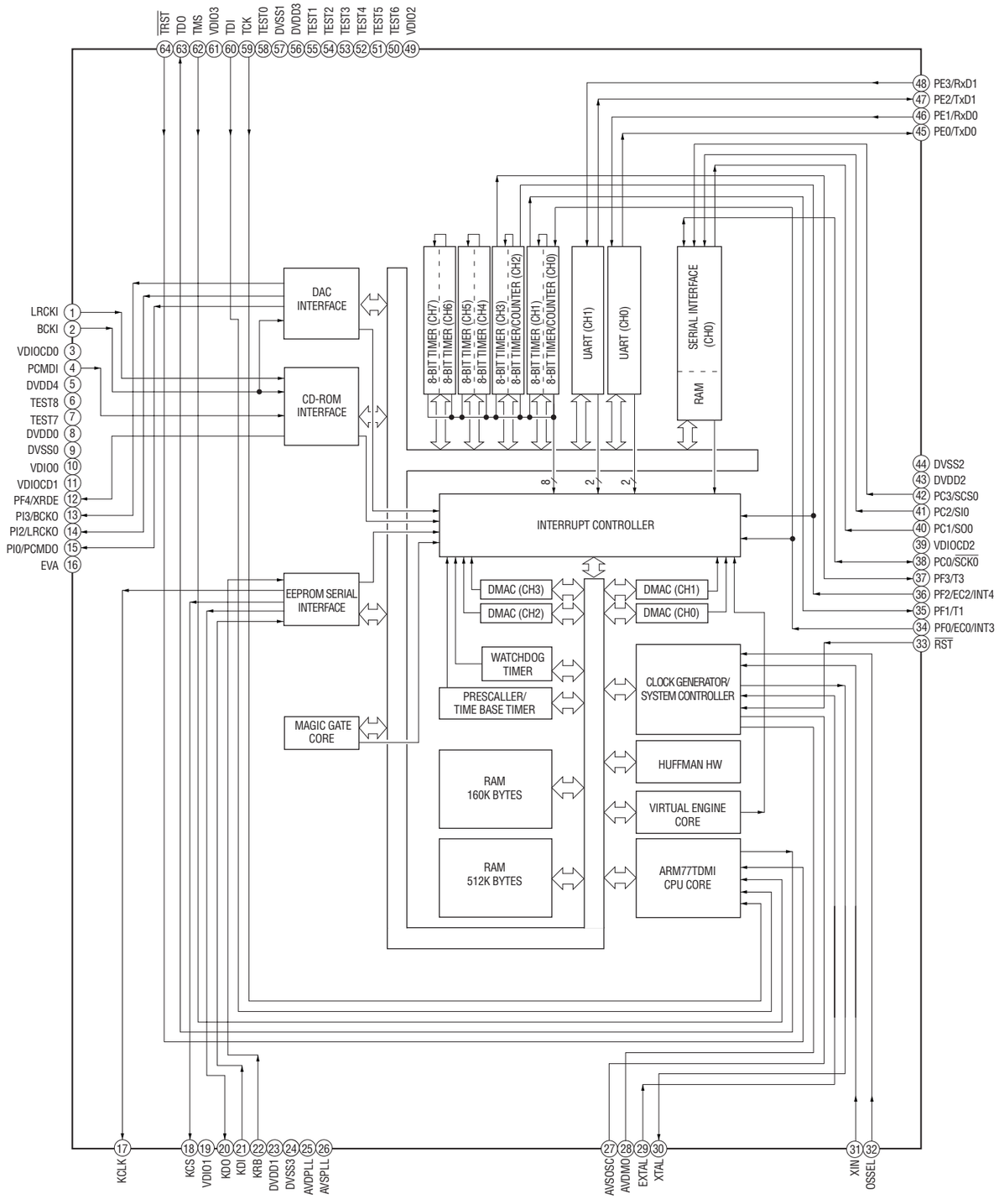
5-14. SCHEMATIC DIAGRAM – HDD Section –



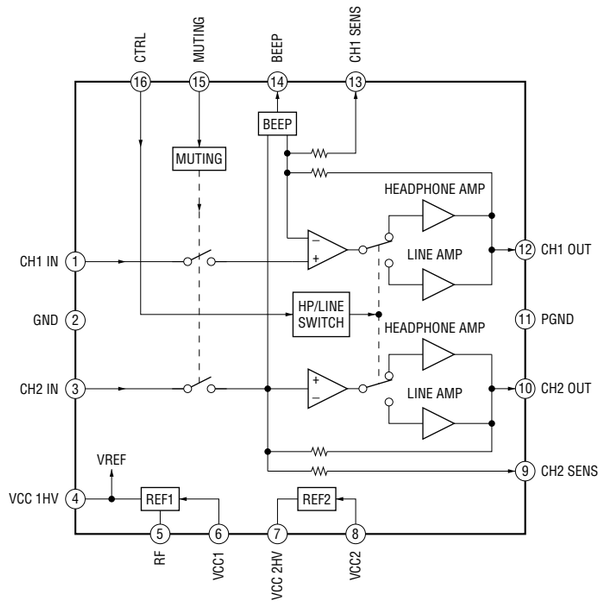
- **IC Block Diagrams**

– MAIN Board –

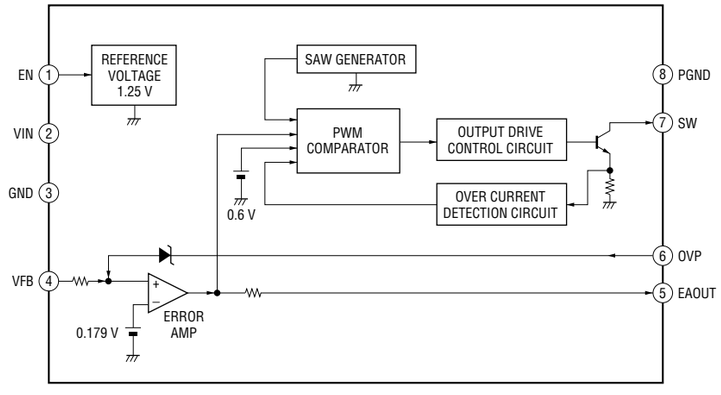
IC3001 CXR710160-213GH



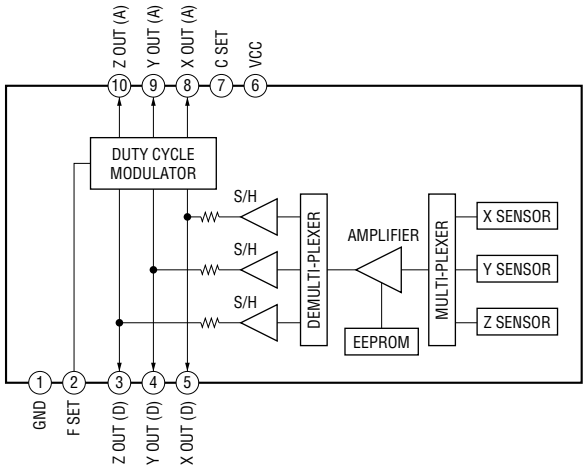
IC4301 AN17020A-VB



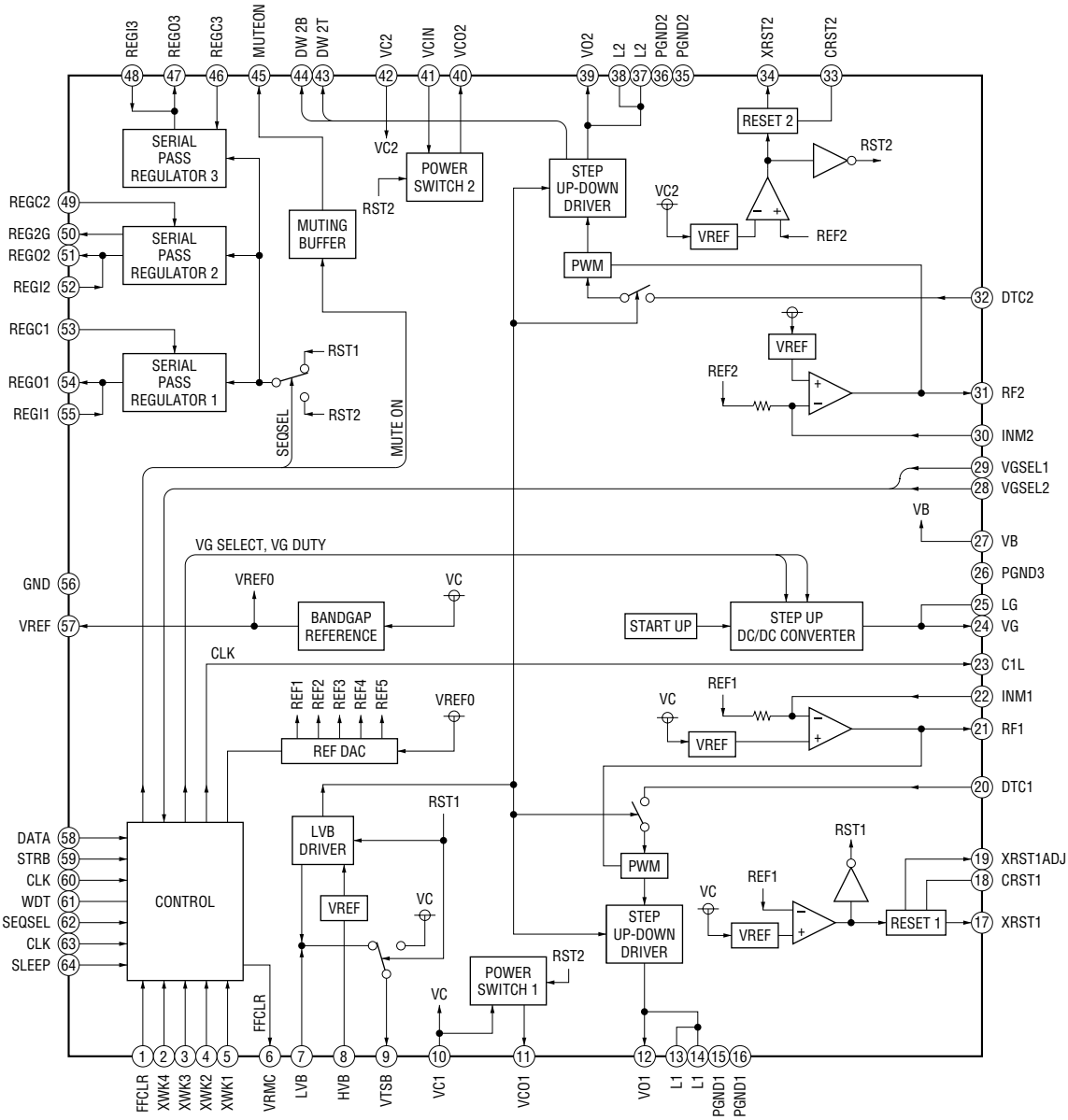
IC5001 TK11856FTL-G



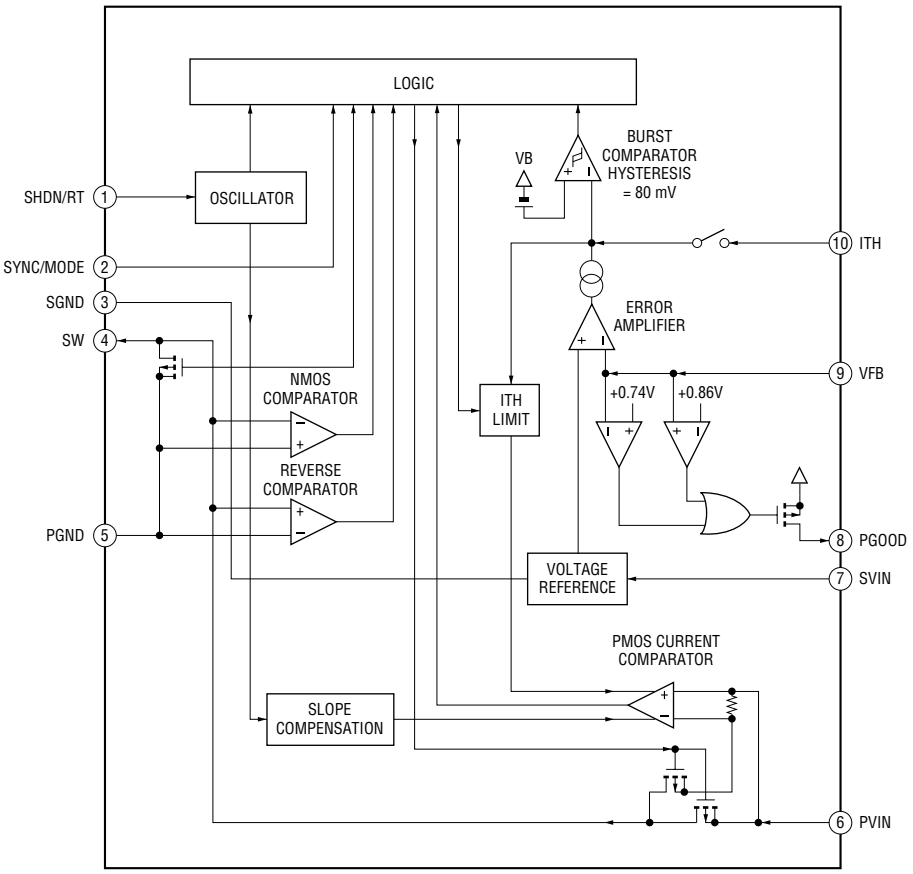
IC8000 HAAM-312B



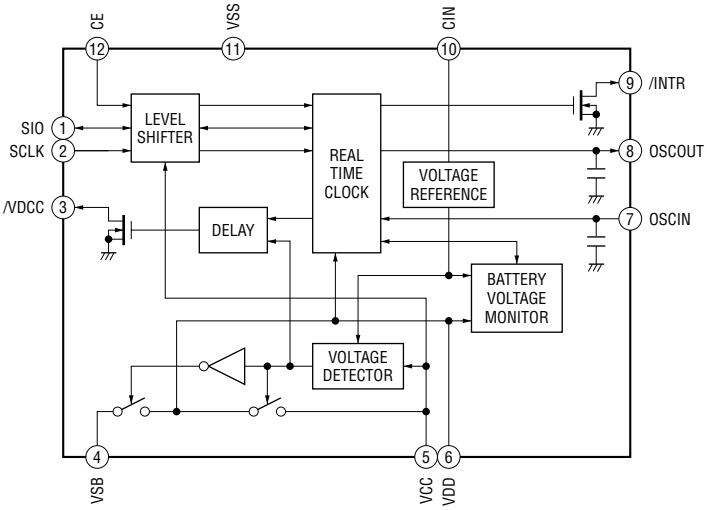
IC9003 SC901584EPR2



IC9004 LTC3411EDD#TR



IC9503 R2061K01-E2



- **IC Pin Function Description**

MAIN BOARD IC1003 CXR704060-201GA (SYSTEM CONTROLLER, D/A CONVERTER)

Pin No.	Pin Name	I/O	Description
1	VDIO0	-	Power supply terminal (+1.9V) (for I/O interface)
2 to 10	PM4/A12 to PM7/A15, PN0/A16 to PN4/A20	O	Address signal output to the flash memory and multi interface
11 to 13	PN5/A21 to PN7/A23	O	Address signal output to the multi interface
14	DVSS7	-	Ground terminal
15 to 22	FAD0 to FAD7	I/O	Not used
23	FCLE	O	Not used
24	FALE	O	Not used
25	VDIODF	-	Power supply terminal (for NAND flash memory interface) Not used
26	$\overline{\text{FWE}}$	O	Not used
27	$\overline{\text{PRE}}$	O	Not used
28	$\overline{\text{FWP}}$	O	Not used
29	$\overline{\text{FCE0}}$	O	Not used
30	FRB0	I	Not used
31	$\overline{\text{FCE1}}$	O	Not used
32	FRB1	I	Not used
33	PP0/RP	O	Wake up signal output to the sub system controller
34	PP1/RB	O	Communication request signal output to the sub system controller
35	DVDD0	-	Power supply terminal (+1.2V) (for core)
36	DVSS1	-	Ground terminal
37	VDIO1	-	Power supply terminal (+1.9V) (for I/O interface)
38 to 53	PO0/D0 to PO7/D7, PB0/D8 to PB7/D15	I/O	Two-way data bus with the flash memory and multi interface
54	PA0/PWM	O	Not used
55	PA1/SDA	O	Not used
56	PA2/SCL	O	Not used
57	PC0/$\overline{\text{SCK0}}$	I	Serial clock signal input from the sub system controller
58	PC1/SO0	O	Serial data output to the sub system controller
59	PC2/SI0	I	Serial data input from the sub system controller
60	PC3/$\overline{\text{SCS0}}$	O	Chip select signal output to the sub system controller
61	DVSS2	-	Ground terminal
62	VDIO2	-	Power supply terminal (+1.9V) (for I/O interface)
63	KDI	O	Not used
64	KRB	O	Not used
65	KCLK	O	Not used
66	KCS	O	Not used
67	KDO	O	Not used
68	TEST4	I	Input terminal for the test mode setting
69	PE0/TXD0	O	Data output terminal Not used
70	PE1/RXD0	I	Data input terminal Not used
71	PE2/TXD1	O	Strobe signal output to the power control

Pin No.	Pin Name	I/O	Description
72	PE3/RXD1	I	Data input terminal Not used
73	PE4/$\overline{\text{SCK1}}$	O	Serial clock signal output to the power control and real time clock
74	PE5/SO1	O	Serial data output to the power control and real time clock
75	PE6/SI1	I	Serial data input from the real time clock
76	PE7/$\overline{\text{SCS1}}$	O	Chip enable signal output to the real time clock
77	XOUT/CKO	O	Clock signal (176 kHz) output to the multi interface
78	DVDD1	-	Power supply terminal (+1.2V) (for core)
79	DVSS3	-	Ground terminal
80	VDIO3	-	Power supply terminal (+1.9V) (for I/O interface)
81	PF0/EC0/INT3	I	Interrupt request signal input from the sub system controller
82	PF1/T1	O	Shut down signal output terminal Not used
83	PF2/EC2/INT4	I	Interrupt request signal input from the multi interface
84	PF3/T3	O	Clock signal (176 kHz) output to the power control
85	PF4/BEEP	O	Beep signal output to the headphone amplifier
86	PG0/DACK0	I	Ready/busy selection signal input from the flash memory "L": busy, "H": ready
87	PG1/DREQ0/INT5	I	Interrupt request signal input from the sub system controller
88	PG2/DACK1/INT6	I	Interrupt request signal input from the multi interface
89	PG3/DREQ1/INT7	I	Interrupt request signal input from the multi interface
90 to 93	TEST2, TEST3, TEST0, TEST1	I	Input terminal for the test mode setting
94	TACK	O	Bus response signal output terminal Not used
95	EVA	I	EVA mode selection signal input terminal Not used
96	AVSAD	-	Ground terminal (for A/D converter)
97	AVDAD	-	Power supply terminal (+2.4V) (for A/D converter)
98	AN0	I	Battery voltage monitor input terminal (A/D input)
99	AN1	I	Not used
100	AN2	I	Acceleration detection signal of X shaft direction input from the acceleration sensor
101	AN3	I	Acceleration detection signal of Y shaft direction input from the acceleration sensor
102	AN4	I	Acceleration detection signal of Z shaft direction input from the acceleration sensor
103, 104	AN5, AN6/INT8	I	Set key input terminal (A/D input)
105	AN7/INT9	I	Remote commander key input terminal (A/D input)
106	$\overline{\text{RST}}$	I	Reset signal input from the power control
107	$\overline{\text{RAMBK}}$	I	RAM back up control signal input terminal Not used
108	VDBK	-	Power supply terminal (+1.2V) (for RAM back up)
109	TDI	I	Data input terminal (for JTAG) Not used
110	TMS	I	Test mode control signal input terminal (for JTAG) Not used
111	TCK	I	Clock signal input terminal (for JTAG) Not used
112	TRST	I	Reset signal input terminal (for JTAG) Not used
113	TDO	O	Data output terminal (for JTAG) Not used
114	VDIOJT	-	Power supply terminal (+1.9V) (for JTAG)
115	DVDD2	-	Power supply terminal (+1.2V) (for core)
116	DVSS4	-	Ground terminal
117	VDIO4	-	Power supply terminal (+1.9V) (for I/O interface)
118	PD0/CONNECT	I	Battery in detect switch input terminal
119	PD1/XVDATA	O	Test terminal for debug Not used

Pin No.	Pin Name	I/O	Description
120	PD2/DPLS	O	Test terminal for debug Not used
121	PD3/DMNS	O	Test terminal for debug Not used
122	PD4/TXDPLS	O	Test terminal for debug Not used
123	PD5/TXDMNS	O	Test terminal for debug Not used
124	PD6/TXENL	O	Test terminal for debug Not used
125	PD7/SUSPEND	O	Test terminal for debug Not used
126	VBUS	I	Not used
127	VDIOUS	-	Power supply terminal (for USB transceiver) Not used
128	UDM	I/O	Not used
129	UDP	I/O	Not used
130	TRON	O	Not used
131	AVSDA	-	Ground terminal (for internal D/A converter)
132	VREFER	O	Reference voltage output terminal (R-ch)
133	AOUTR	O	Analog audio signal output to the headphone amplifier (R-ch)
134	AOUTL	O	Analog audio signal output to the headphone amplifier (L-ch)
135	VREFL	O	Reference voltage output terminal (L-ch)
136	AVDDA	-	Power supply terminal (+2.4V) (for internal D/A converter)
137	XTAL	O	Main system clock output terminal (22.5792 MHz)
138	EXTAL	I	Main system clock input terminal (22.5792 MHz)
139	AVDMO	-	Power supply terminal (+2.4V) (for main system clock oscillator)
140	AVSOSC	-	Ground terminal (for main and sub system clock oscillator)
141	TX	O	Sub system clock output terminal (16 MHz)
142	ETX	I	Sub system clock input terminal (16 MHz)
143	AVDUO	-	Power supply terminal (+2.4V) (for sub system clock oscillator)
144	AVSPLL	-	Ground terminal (for PLL)
145	AVDPLL	-	Power supply terminal (+3.3V) (for PLL analog system)
146	PQ0/PGMTR0	O	Sleep signal output to the power control
147	PQ1/PGMTR1	O	Starting factor clear signal output to the power control
148	PQ2/PGMTR2	I	Charge progress signal input from the charge control "L": charge state
149	PQ3/PGMTR3	I	Charge completion signal input from the charge control
150	PQ4	I	AC adaptor detection signal input terminal "L": AC adaptor in
151	PQ5	O	Sleep signal output to the multi interface
152	PQ6	O	Reset signal output to the sub system controller
153	PQ7	O	Reset signal output to the multi interface
154	DVSS8	-	Ground terminal
155	VDIO7	-	Power supply terminal (+1.9V) (for I/O interface)
156	PR0	O	Battery voltage monitor on/off control signal output terminal
157 to 161	PR1 to PR5	-	Not used
162	PR6	O	Headphone/line selection signal output to the headphone amplifier
163	PR7	O	Muting on/off control signal output to the headphone amplifier
164	DVSS9	-	Ground terminal
165	VDIOMS	-	Power supply terminal (+3.3V) (for memory stick interface) Not used
166	MSDIO	I/O	Two-way data bus with the memory stick interface Not used
167	MSBS	O	Bus state signal output to the memory stick interface Not used
168	MSSCLK	O	Clock signal output to the memory stick interface Not used

Pin No.	Pin Name	I/O	Description
169	$\overline{\text{MSINS}}$	I	Card detection signal input from the memory stick interface Not used
170	P17	I	HOLD key detection signal input terminal "L": hold
171	P10/DADT	I	Audio data input from the memory stick interface Not used
172	P11/ADDT	I	Audio data input from the sub system controller
173	P12/LRCK	I	L/R sampling clock signal input from the sub system controller
174	P13/$\overline{\text{BCK}}$	I	Bit clock signal input from the sub system controller
175	P14/FS256	O	Clock signal (11.2896 MHz) output to the multi interface
176	P15/MUTFGL	O	Not used
177	P15/MUTFGR	O	Not used
178	DVDD3	-	Power supply terminal (+1.2V) (for core)
179	DVSS5	-	Ground terminal
180	VDIO5	-	Power supply terminal (+1.9V) (for I/O interface)
181	PJ0/$\overline{\text{WAIT}}$	I	Wait signal input from the multi interface
182	PJ1/$\overline{\text{RE}}$	O	Read signal output to the multi interface
183	PJ2/$\overline{\text{LWR}}$/$\overline{\text{LB}}$	O	Write strobe signal output to the multi interface (lower byte)
184	PJ3/$\overline{\text{UWR}}$/$\overline{\text{UB}}$	O	Write strobe signal output to the multi interface (upper byte)
185	PJ4/$\overline{\text{WE}}$	O	Write signal output to the multi interface
186	PK0/$\overline{\text{CS0}}$	O	Chip select signal output to the flash memory
187	GAND_XCS1	O	Chip select signal output to the flash memory Used for the E, Taiwan, Korean, Chinese and Tourist models
188	PK2/XBOOT	I	Boot mode selection signal input terminal Not used
189	PK3/$\overline{\text{MS}}$_SIO	I	Boot mode selection signal input terminal Not used
190	PK4	I	Not used
191	PK5/$\overline{\text{CS5}}$	O	Chip select signal output to the multi interface
192	PK6/$\overline{\text{CS6}}$	O	Chip select signal output to the multi interface
193	PK7/$\overline{\text{CS7}}$	O	Chip select signal output to the multi interface
194	DVSS6	-	Ground terminal
195	VDIO6	-	Power supply terminal (+1.9V) (for I/O interface)
196 to 207	PL0/A0 to PL7/A7, PM0/A8 to PM3/A11	O	Address signal output to the flash memry and mullet interface
208	DVSS6	-	Ground terminal

MAIN BOARD IC2001 1S1R72003BOOA100 (USB CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	R1	I/O	Internal operation setting terminal
2	N.C.	-	Not used
3	AVSS	-	Ground terminal (analog system)
4	AVDD	-	Power supply terminal (+3.3V) (analog system)
5	AVSS	-	Ground terminal (analog system)
6	AVDD	-	Power supply terminal (+3.3V) (analog system)
7	AVSS	-	Ground terminal (analog system)
8	DP	I/O	USB data (+) input/output terminal
9	AVSS	-	Ground terminal (analog system)
10	DM	I/O	USB data (-) input/output terminal
11	AVSS	-	Ground terminal (analog system)
12	AVDD	-	Power supply terminal (+3.3V) (analog system)
13	TSTEN	I	Input terminal for the test mode setting
14	VBUS	I	USB bus detection signal input terminal
15	XRESET	I	Reset signal input from the multi interface
16	XSLEEP	I	Sleep signal input from the multi interface
17 to 24	CA0 to CA7	I	Address signal input from the multi interface
25	VSS	-	Ground terminal (logic system)
26	VDD	-	Power supply terminal (+3.3V) (logic system)
27	XCS	I	Chip select signal input from the multi interface
28	XRD	I	Read signal input from the multi interface
29	XWAIT	O	Wait signal output to the multi interface
30	XWR	I	Write signal input from the multi interface
31	XINT	O	Interrupt request signal output to the multi interface
32 to 35	CD0 to CD3	I/O	Two-way data bus with the multi interface and liquid crystal display unit
36	VSS	-	Ground terminal (logic system)
37 to 40	CD4 to CD7	I/O	Two-way data bus with the multi interface and liquid crystal display unit
41	VDD	-	Power supply terminal (+3.3V) (logic system)
42	ATPGEN	I	Input terminal for the test mode setting
43	SCANEN	I	Input terminal for the test mode setting
44, 45	TPORT0, TPORT1	I/O	Input/output terminal for the test mode setting
46, 47	TIN0, TIN1	I	Input terminal for the test mode setting
48	VSS	-	Ground terminal (logic system)
49	OSCOUT	O	Clock signal output terminal Not used
50	VSS	-	Ground terminal (logic system)
51	VDD	-	Power supply terminal (+3.3V) (logic system)
52	XHRESET	I	Reset signal input terminal Not used
53 to 60	HDD4 to HDD11	I/O	Two-way data bus with the multi interface and hard disk drive unit
61	VSS	-	Ground terminal (logic system)
62 to 69	HDD0 to HDD3, HDD12 to HDD15	I/O	Two-way data bus with the multi interface and hard disk drive unit
70	VDD	-	Power supply terminal (+3.3V) (logic system)
71	HDMARQ	I	DMA request signal input from the hard disk drive unit
72	XHIOW	O	Write signal output to the hard disk drive unit
73	XHIOR	O	Read signal output to the hard disk drive unit

Pin No.	Pin Name	I/O	Description
74	HIORDY	I	Wait signal input from the hard disk drive unit
75	VSS	-	Ground terminal (logic system)
76	VDD	-	Power supply terminal (+3.3V) (logic system)
77	XHDMACK	O	DMA acknowledge signal output to the hard disk drive unit
78	HINTRQ	I	Interrupt request signal input from the hard disk drive unit
79	HA1	O	Address signal output to the multi interface and hard disk drive unit
80	XHPDIAG	I	Diagnosis sequence compression signal input from the hard disk drive unit
81, 82	HA0, HA2	O	Address signal output to the multi interface and hard disk drive unit
83, 84	HCS0, HCS1	O	Chip select signal output to the hard disk drive unit
85	XHDASP	I	Drive valid signal and slave drive detection signal input from the hard disk drive unit
86	VSS	-	Ground terminal (logic system)
87, 88	CLKSEL0, CLKSEL1	I	Input terminal for oscillation frequency setting Fixed at 12 MHz in this set
89	VSS	-	Ground terminal (logic system)
90	XVSS	-	Ground terminal (logic system)
91	XVDD	-	Power supply terminal (+3.3V) (logic system)
92	VDD	-	Power supply terminal (+3.3V) (logic system)
93	PVDD	-	Power supply terminal (+3.3V) (for PLL)
94	VDD	-	Power supply terminal (+3.3V) (logic system)
95	PVSS	-	Ground terminal (for PLL)
96 to 98	NC	-	Not used
99	XI	I	Sub system clock input terminal (12MHz)
100	XO	O	Sub system clock output terminal (12MHz)

MAIN BOARD IC7001 CXD1616GH (MULTI INTERFACE)

Pin No.	Pin Name	I/O	Description
1	XTAL	I	Sub system clock input terminal Not used
2	EXTAL	O	Sub system clock output terminal Not used
3	CLK2550A	O	Clock signal (22.5792 MHz) output terminal Not used
4	CLK2550X	O	Clock signal (22.5792 MHz) inversion output terminal Not used
5	XOSCSTP	I	Oscillation stop signal input terminal Not used
6	XRESET	I	Reset signal input from the main system controller
7	EXCLKIN	I	Clock signal (176 kHz) input from the main system controller
8 to 30	A1 to A23	I	Address signal input from the main system controller
31 to 46	D0 to D15	I/O	Two-way data bus with the main system controller and flash memory
47 to 49	XCS1 to XCS3	I	Chip select signal input from the main system controller
50	XRD	I	Read signal input from the main system controller
51	XWR	I	Write signal input from the main system controller
52	XLB	I	Write strobe signal input from the main system controller (lower byte)
53	XUB	I	Write strobe signal input from the main system controller (upper byte)
54	XWAIT	I	Wait signal input from the main system controller
55, 56	NC	-	Not used
57	XINTREQG	O	Interrupt request signal output to the main system controller
58	XINTREQH	O	Interrupt request signal output to the main system controller
59	XINTREQU	O	Interrupt request signal output to the main system controller
60 to 72	SA0 to SA12	O	Address signal output to the SD-RAM
73, 74	BA0, BA1	O	Bank selection address signal output to the SD-RAM
75 to 90	SD0 to SD15	I/O	Two-way data bus with the SD-RAM
91	XSCS	O	Chip select signal output to the SD-RAM
92	XRAS	O	Row address strobe signal output to the SD-RAM
93	XCAS	O	Column address strobe signal output to the SD-RAM
94	XSWE	O	Write enable signal output to the SD-RAM
95	LDQM	O	I/O mask signal output to the SD-RAM (lower byte)
96	UDQM	O	I/O mask signal output to the SD-RAM (upper byte)
97	SDCLK	O	Clock signal output to the SD-RAM
98	SDCKE	O	Clock enable signal output to the SD-RAM
99	UA0	O	Address signal output to the USB controller and liquid crystal display unit
100 to 106	UA1 to UA7	O	Address signal output to the USB controller
107 to 114	UD0 to UD7	I/O	Two-way data bus with the USB controller and liquid crystal display unit
115	XUCS0	O	Chip select signal output to the USB controller
116	XUCS1	O	Chip select signal output to the liquid crystal display unit
117	XURD	O	Read signal output to the USB controller and liquid crystal display unit
118	XUWR	O	Write signal output to the USB controller and liquid crystal display unit
119	XUWAIT	I	Wait signal input from the USB controller
120	XUINTREQ	I	Interrupt request signal input from the USB controller
121 to 123	HA0 to HA2	I	Address signal input from the USB controller
124 to 139	HD0 to HD15	I/O	Two-way data bus with the USB controller and hard disk drive unit
140, 141	XHCS0, XHCS1	O	Chip select signal output to the hard disk drive unit
142	XHIOR	O	Read signal output to the hard disk drive unit
143	XHIOW	O	Write signal output to the hard disk drive unit

Pin No.	Pin Name	I/O	Description
144	HIORDY	I	Wait signal input from the hard disk drive unit
145	XHDMACK	O	DMA acknowledge signal output to the hard disk drive unit
146	HDMARQ	I	DMA request signal input from the hard disk drive unit
147	HINTREQ	I	Interrupt request signal input from the hard disk drive unit
148	XHRESET	O	Reset signal output to the hard disk drive unit
149	LRCK	O	L/R sampling clock signal output to the sub system controller
150	BCK	O	Bit clock signal output to the sub system controller
151	DATA	O	Transmission data output to the sub system controller
152	XRDE	O	Transmission enabling signal output to the sub system controller
153	FS256	I	Clock signal (11.2896 MHz) input from the main system controller
154	DTCK	I/O	Two-way TSB communication data bus with the remote commander
155	URESET	O	Reset signal output to the USB controller
156	USLEEP	O	Sleep signal output to the USB controller
157	HDD_PWR_CTL	O	Power supply on/off control signal output terminal for hard disk drive unit
158	GSEN_PWR_CTL	O	Power supply on/off control signal output terminal for acceleration sensor
159	BACKLIT_PWR	O	Power supply on/off control signal output terminal for liquid crystal display back light
160	D33_MODE	O	Power supply on/off control signal output terminal Not used
161	RESET_LCD	O	Reset signal output to the liquid crystal display unit
162	SUSPEND	O	Chip enable signal output to the charge control "L": suspend state
163	VBUS_LIM	O	USB port charge current setting siganal output terminal to the charge control "H": 500 mA, "L": 100 mA
164	SYNCMODE	I	Sync/non-sync mode selection signal input terminal Not used
165	TDI	I	Data input terminal (for JTAG) Not used
166	TMS	I	Test mode control signal input terminal (for JTAG) Not used
167	TCK	I	Clock signal input terminal (for JTAG) Not used
168	TRST	I	Reset signal input terminal (for JTAG) Not used
169	TDO	O	Data output terminal (for JTAG) Not used
170 to 172	TEST0 to TEST2	I	Input terminal for the test mode setting
173	XICKSTP	I	Sleep signal input from the main system controller
174	NC	-	Not used
175 to 190	VDE33	-	Power supply terminal (+1.2V)
191 to 200	VDE33	-	Power supply terminal (+1.9V)
201 to 206	VDE33	-	Power supply terminal (+3.3V)
207 to 223	GND	-	Ground terminal
224 to 228	NC	-	Not used

MAIN BOARD IC9002 SN412005RHLR (CHARGE CONTROL)

Pin No.	Pin Name	I/O	Description
1	LDO	O	3.3V LDO regurated power supply output terminal
2	ISTAT1	O	Charge progress signal output to the system controller "L": charge state
3	ISTAT2	O	Charge completion signal output to the system controller
4	AC	I	Charge volatage input from the AC adaptor
5, 6	BAT	I/O	Power supply volatage input from the rechargeable battery or charge volatage output to the rechargeable battery
7	ISET2	I	USB port charge current setting siganal input from the multi interface "H": 500 mA, "L": 100 mA
8	PSEL	I	Charge source selection siganal input terminal "H": AC, "L": USB
9	CE	I	Chip enable signal input input from the multi interface "L": suspend state
10	ISET1	I	Setting terminal for AC input charge current and AC/USB precharge/termination
11	VSS	-	Ground terminal
12	TS	I	Thermal detection signal input terminal
13	DPPM	I	Setting terminal for the dinamic power pass management
14	TMR	I/O	Timer program input terminal Becomes impossible to do safety timer and charge termination when connecting 1 pin
15 to 17	OUT	O	Power supply volatage output terminal
18	XACPG	O	AC power good-state detection signal output terminal
19	XUSBPG	O	USB power good-state detection signal output terminal
20	USB	I	Charge volatage input from the USB connector

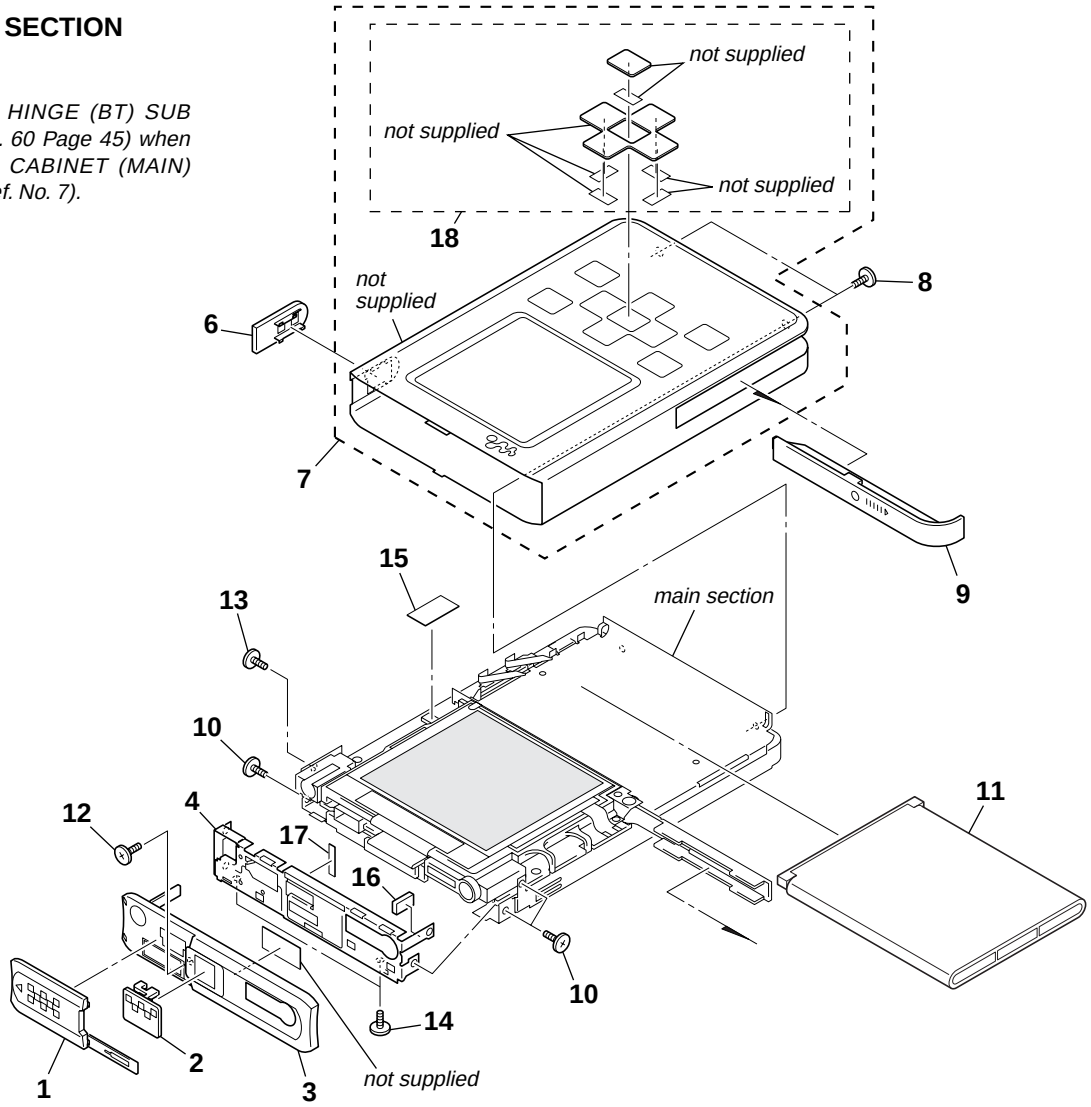
SECTION 6
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  AUS : Australian model KR : Korean model
  CH : Chinese model MX : Mexican model
  JE : Tourist model TW : Taiwan model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

6-1. OVERALL SECTION

***Note**: Exchange the HINGE (BT) SUB ASSY (Ref. No. 60 Page 45) when you exchange CABINET (MAIN) SUB ASSY (Ref. No. 7).*

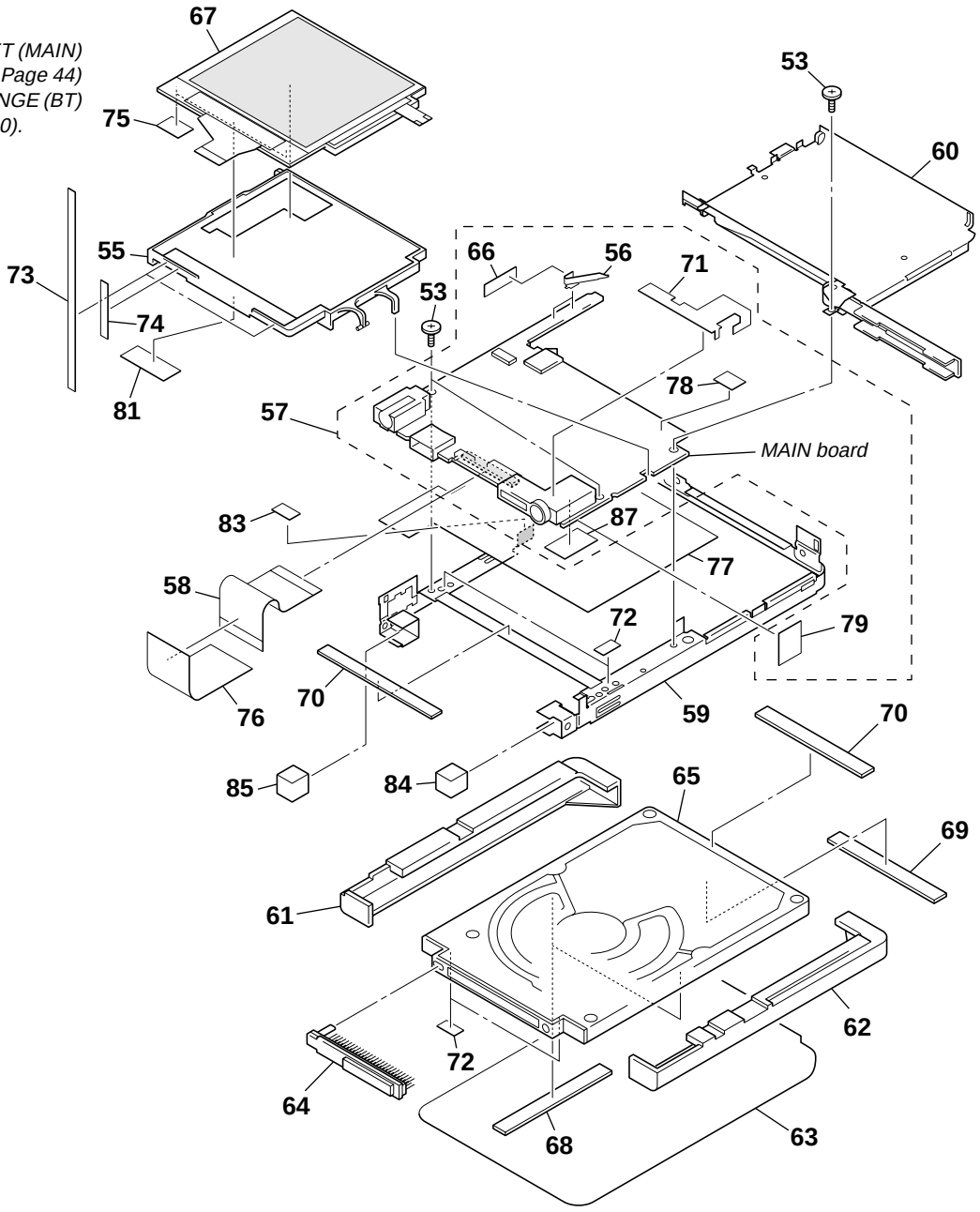


Ref. No.	Part No.	Description	Remark
1	X-2059-961-1	CAP (JACK) S SUB ASSY (for SILVER, RED)	
1	X-2059-962-1	CAP (JACK) B SUB ASSY (for BLACK)	
2	2-594-374-01	KNOB (HOLD) (for SILVER, RED)	
2	2-594-374-11	KNOB (HOLD) (for BLACK)	
3	2-594-360-01	CABINET (UPPER) (for SILVER, RED)	
3	2-594-360-11	CABINET (UPPER) (for BLACK)	
4	2-594-383-01	REINFORCEMENT (JACK)	
6	2-594-497-01	BRACKET (STRAP) (for SILVER, RED)	
6	2-594-497-11	BRACKET (STRAP) (for BLACK)	
7	X-2059-928-2	CABINET (MAIN) S SUB ASSY (SILVER)	
7	X-2059-929-2	CABINET (MAIN) R SUB ASSY (RED)	
7	X-2059-930-2	CABINET (MAIN) B SUB ASSY (BLACK)	
8	3-234-449-25	SCREW (M1.4) (for BLACK, RED)	
8	3-234-449-27	SCREW (M1.4) (for SILVER)	
9	2-594-367-01	LID, BATTERY CASE (for SILVER)	

Ref. No.	Part No.	Description	Remark
9	2-594-367-11	LID, BATTERY CASE (for BLACK)	
9	2-594-367-21	LID, BATTERY CASE (for RED)	
10	3-234-449-11	SCREW (M1.4)	
11	X-2059-912-1	LITHIUM ION BATTERY ASSY (US)	
11	X-2059-913-1	LITHIUM ION BATTERY ASSY (EXCEPT US)	
12	3-234-449-17	SCREW (M1.4) (for BLACK)	
12	3-234-449-19	SCREW (M1.4) (for SILVER, RED)	
13	3-225-996-02	SCREW (M1.4) (EG), PRECISION PAN	
14	3-234-449-31	SCREW (M1.4)	
15	2-109-023-01	SHEET (PWB RIB)	
16	2-636-102-01	SHEET (REINFORCEMENT JACK)	
17	2-635-547-01	SHEET (JACK TERMINAL)	
18	X-2102-911-1	BUTTON (TOP) S SUB ASSY (for SILVER)	
18	X-2102-956-1	BUTTON (TOP) R SUB ASSY (for RED)	
18	X-2102-957-1	BUTTON (TOP) B SUB ASSY (for BLACK)	

6-2. MAIN SECTION

Note: *Exchange the CABINET (MAIN) SUB ASSY (Ref. No. 7 Page 44) when you exchange HINGE (BT) SUB ASSY (Ref. No. 60).*



Ref. No.	Part No.	Description	Remark
53	3-238-876-04	SCREW (M1.4), TOOTHED LOCK	
55	2-594-369-02	HOLDER (LCD)	
56	2-594-388-01	TERMINAL (+), BATTERY	
57	X-2059-485-1	MAIN BOARD, COMPLETE (for SERVICE) (US, AEP, UK, MX, AUS)	
57	X-2059-914-1	MAIN BOARD, COMPLETE (for SERVICE) (E, TW, KR, CH, JE)	
58	1-866-845-11	FLEXIBLE BOARD	
59	X-2055-423-2	BRACKET (AB) ASSY	
60	X-2102-967-1	HINGE (BT) S SUB ASSY (for SILVER)	
60	X-2102-968-1	HINGE (BT) R SUB ASSY (for RED)	
60	X-2102-969-1	HINGE (BT) B SUB ASSY (for BLACK)	
61	2-594-387-01	INSULATOR (L)	
62	2-598-346-01	INSULATOR (R)	
63	2-632-635-01	SHEET (DAMPER 1.5)	
64	A-1118-057-A	HDD BOARD, COMPLETE	
65	1-479-217-13	HDD UNIT (20GB)	
66	2-632-652-01	SPACER (BATTERY TERMINAL)	

Ref. No.	Part No.	Description	Remark
67	1-805-853-11	DISPLAY PANEL, LIQUID CRYSTAL	
68	2-634-752-01	CUSHION, HDD 1.5B	
69	2-629-604-01	CUSHION (HDD 1.5)	
70	2-629-604-31	CUSHION (HDD 1.5)	
71	2-634-096-01	SHEET (HP J)	
72	2-634-751-01	CUSHION, HDD 1.5A	
73	2-635-965-01	SHEET (LCD)	
74	2-635-965-11	SHEET (LCD)	
75	2-635-825-01	SHEET (LCD MOD), ADHESIVE	
76	2-634-097-01	SHEET (HDD FPC)	
77	2-634-157-01	SHEET (PWB-A)	
78	2-634-785-01	SPACER (IC)	
79	2-635-462-01	SHEET (JACK TERMINAL)	
81	2-635-430-01	SHEET (LCD DRIVER)	
83	3-242-558-11	SPACER (LINE IN)	
84	2-634-783-01	SPACER, BRACKET (HP)	
85	2-634-784-01	SPACER, BRACKET (DC)	
87	2-587-084-01	SHEET (A), ELECTROSTATIC	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AUS : Australian model MX : Mexican model
  JE : Tourist model TW : Taiwan model
  KR : Korean model CH : Chinese model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

原理图和零件清单中标有⚠记号的零部件、或带有⚠记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1118-057-A	HDD BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN100	1-819-366-11	CONNECTOR, FPC (ZIF) 51P			
CN101	(Not supplied)	CONNECTOR, SQUARE (PLUG) 44P			
**********					
	X-2059-485-1	MAIN BOARD, COMPLETE (for service)			
		(US, AEP, UK, MX, AUS)			
	X-2059-914-1	MAIN BOARD, COMPLETE (for service)			
		(E, TW, KR, CH, JE)			
		**********			
	2-587-084-01	SHEET (A), ELECTROSTATIC			
	2-594-388-01	TERMINAL (+), BATTERY			
	2-632-652-01	SPACER (BATTERY TERMINAL)			
	2-634-096-01	SHEET (HP J)			
	2-634-785-01	SPACER (IC)			
	2-635-462-01	SHEE (JACK TERMINAL)			
		< CAPACITOR >			
C1001	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1002	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1003	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1004	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1005	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1006	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1007	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1008	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1009	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1010	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1011	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1012	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1013	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1014	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1015	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1016	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1017	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1018	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C1019	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1020	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1021	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C1022	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1023	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1024	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1025	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C1026	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1027	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C1028	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1030	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1101	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C1103	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C1105	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
					(E, TW, KR, CH, JE)
C1107	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
					(E, TW, KR, CH, JE)
C2001	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2002	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C2003	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C2004	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C2005	1-100-507-91	CERAMIC CHIP	4.7uF	20%	6.3V
C2006	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2007	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2008	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2009	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2010	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2011	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	50V
C2012	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	50V
C2013	1-100-507-91	CERAMIC CHIP	4.7uF	20%	6.3V
C2014	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2015	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2016	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2017	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2018	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2019	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2020	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2021	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2022	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C2023	1-100-507-91	CERAMIC CHIP	4.7uF	20%	6.3V
C2024	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2025	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2026	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C2027	1-100-841-11	TANTALUM CHIP	100uF	20%	6.3V
C3001	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3002	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C3003	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C3004	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3005	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C3006	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C3007	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3008	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3009	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3010	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3011	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3012	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3013	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C3015	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3017	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C3018	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C4101	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C4102	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C4103	1-100-573-11	CERAMIC CHIP	390PF	10%	50V
C4104	1-135-868-11	TANTALUM CHIP	220uF	20%	2.5V
C4105	1-113-600-11	TANTALUM CHIP	2.2uF	20%	6.3V
C4106	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4201	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C4202	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C4203	1-100-573-11	CERAMIC CHIP	390PF	10%	50V
C4204	1-135-868-11	TANTALUM CHIP	220uF	20%	2.5V
C4205	1-113-600-11	TANTALUM CHIP	2.2uF	20%	6.3V
C4206	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4301	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C4302	1-135-337-11	TANTALUM CHIP	1uF	20%	6.3V
C4303	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C4304	1-127-895-11	TANTALUM CHIP	22uF	20%	4V
C4305	1-164-866-11	CERAMIC CHIP	47PF	5%	50V
C4306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4307	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C4308	1-127-895-11	TANTALUM CHIP	22uF	20%	4V
C4309	1-100-843-11	TANTALUM CHIP	47uF	20%	4V
C4313	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4315	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4316	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C4317	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C4318	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4319	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4320	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C5001	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5002	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C5003	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C5004	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C5008	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C5013	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C5015	1-125-827-11	CERAMIC CHIP	1uF	10%	25V
C5017	1-128-632-11	CERAMIC CHIP	0.01uF	10%	6.3V
C5018	1-128-632-11	CERAMIC CHIP	0.01uF	10%	6.3V
C5019	1-100-507-91	CERAMIC CHIP	4.7uF	20%	6.3V
C5020	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C7001	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7002	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7003	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7004	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7005	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7006	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7007	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7008	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7009	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7010	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7011	1-128-617-11	CERAMIC CHIP	100PF	5%	25V
C7012	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7013	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7014	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7015	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7016	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7017	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C7018	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C8001	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C8002	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C8003	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C8004	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C8005	1-128-632-11	CERAMIC CHIP	0.01uF	10%	6.3V
C8006	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C8007	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C9001	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C9003	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C9004	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C9005	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C9006	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9008	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C9009	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C9011	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C9013	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9014	1-100-786-91	TANTALUM CHIP	22uF	20%	6.3V
C9015	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C9016	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9017	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9018	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C9019	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9020	1-137-934-11	TANTALUM CHIP	47uF	20%	10V
C9021	1-100-733-91	CERAMIC CHIP	10uF	20%	6.3V
C9022	1-128-632-11	CERAMIC CHIP	0.01uF	10%	6.3V
C9023	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9024	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C9025	1-165-887-11	CERAMIC CHIP	0.22uF	10%	6.3V
C9026	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9027	1-100-733-91	CERAMIC CHIP	10uF	20%	6.3V
C9028	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C9030	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9031	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9033	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9034	1-117-919-11	TANTALUM CHIP	10uF	20%	6.3V
C9035	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9036	1-100-841-11	TANTALUM CHIP	100uF	20%	6.3V
C9037	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C9038	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9040	1-128-632-11	CERAMIC CHIP	0.01uF	10%	6.3V
C9041	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9042	1-100-841-11	TANTALUM CHIP	100uF	20%	6.3V
C9043	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C9044	1-100-506-11	CERAMIC CHIP	1uF	20%	6.3V
C9045	1-164-938-11	CERAMIC CHIP	0.0015uF	10%	50V
C9504	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9506	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C9507	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C9508	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9509	1-100-504-11	CERAMIC CHIP	0.1uF	20%	6.3V
C9510	1-164-842-11	CERAMIC CHIP	2PF	0.25PF	50V
		< CONNECTOR >			
CN2001	1-819-371-11	CONNECTOR, FPC (ZIF) 51P			
CN5001	1-819-353-11	CONNECTOR, FPC (ZIF) 25P			
CN5002	1-818-536-21	CONNECTOR, FPC (ZIF) 10P			
CN9002	1-816-956-21	CONNECTOR (SQUARE TYPE) (USB) 5P (USB CONNECTOR)			
		< DIODE/VARISTOR >			
D4101	8-719-046-91	DIODE MA2S111			
D4201	8-719-046-91	DIODE MA2S111			
D4301	8-719-046-85	DIODE MA2S728			
D4302	6-500-776-01	DIODE MAZW068H0LS0			
D4303	6-500-776-01	DIODE MAZW068H0LS0			
D4304	6-500-776-01	DIODE MAZW068H0LS0			
D4445	8-719-046-85	DIODE MA2S728			
D5001	8-719-046-85	DIODE MA2S728			
D5002	8-719-046-85	DIODE MA2S728			
D5003	6-500-813-01	DIODE MA2SD32008S0			
D9001	6-500-813-01	DIODE MA2SD32008S0			
D9002	6-500-813-01	DIODE MA2SD32008S0			
D9003	1-804-155-21	VARISTOR (SMD) (1005)			
D9004	6-500-483-01	DIODE MA22D2800LS0			
D9006	6-500-813-01	DIODE MA2SD32008S0			
D9008	6-500-314-01	DIODE DAN222MT2L			
D9009	8-719-046-85	DIODE MA2S728			
D9501	8-719-046-85	DIODE MA2S728			
		< FUSE >			
⚠F4301	1-576-439-41	FUSE (0.25A/125V)			
		< FERRITE BEAD/RESISTOR >			
FB1001	1-218-990-11	SHORT CHIP	0		
FB1002	1-218-990-11	SHORT CHIP	0		
FB1003	1-469-082-21	INDUCTOR, FERRITE BEAD (1005)			
FB1004	1-218-937-11	RES-CHIP	47	5%	1/16W
FB1005	1-218-990-11	SHORT CHIP	0		
FB1007	1-218-990-11	SHORT CHIP	0		
FB1011	1-218-990-11	SHORT CHIP	0		
FB1101	1-218-990-11	SHORT CHIP	0		
FB1102	1-218-990-11	SHORT CHIP	0 (E, TW, KR, CH, JE)		
FB2001	1-469-084-21	FERRITE	0mH		
FB2002	1-400-693-21	INDUCTOR, FERRITE BEAD (1005)			
FB2003	1-400-693-21	INDUCTOR, FERRITE BEAD (1005)			
FB2004	1-218-990-11	SHORT CHIP	0		
FB2005	1-218-990-11	SHORT CHIP	0		
FB4101	1-400-808-21	INDUCTOR (EMI FERRITE) (1608)			
FB4201	1-400-808-21	INDUCTOR (EMI FERRITE) (1608)			
FB4301	1-400-693-21	INDUCTOR, FERRITE BEAD (1005)			
FB4302	1-218-941-11	RES-CHIP	100	5%	1/16W
FB4303	1-400-198-21	INDUCTOR, FERRITE BEAD (1005)			
FB4304	1-400-461-21	FERRITE, EMI (SMD) (1005)			
FB4305	1-400-808-21	INDUCTOR (EMI FERRITE) (1608)			
FB7001	1-218-990-11	SHORT CHIP	0		
FB7002	1-218-990-11	SHORT CHIP	0		
FB7003	1-218-990-11	SHORT CHIP	0		
FB7004	1-218-990-11	SHORT CHIP	0		
FB9001	1-216-864-11	SHORT CHIP	0		
FB9002	1-400-808-21	INDUCTOR (EMI FERRITE) (1608)			
FB9003	1-469-835-21	INDUCTOR, FERRITE BEAD			
		< IC >			
* IC1001	6-703-107-01	IC SN74LVC2G66DCUR			
* IC1002	6-703-107-01	IC SN74LVC2G66DCUR			
@ IC1003	8-752-933-96	IC CXR704060-201GA			
IC1101	(Not supplied)	IC MBM29SL800BE-90PBT			
IC1102	(Not supplied)	IC MBM29SL800BE-90PBT (E, TW, KR, CH, JE)			
@ IC2001	6-706-311-01	IC S1R72003BOOA100			
@ IC3001	8-753-236-36	IC CXR710160-213GH			
IC4301	6-700-662-01	IC AN17020A-VB			
IC4302	6-705-495-01	IC R1180Q241B-TR-FA			
IC5001	6-708-156-01	IC TK11856FTL-G			
@ IC7001	8-753-218-21	IC CXD1616GH			
@ IC7002	6-708-144-01	IC MT48H8M16LFB4-10			
IC8000	6-706-558-11	IC HAAM-312B			
IC8001	6-704-350-01	IC SN74LVC1G66DCKR			
IC9002	6-708-160-01	IC SN412005RHLR			
@ IC9003	6-704-997-01	IC SC901584EPR2			
IC9004	6-706-220-11	IC LTC3411EDD#TR			
IC9502	6-703-011-01	IC TC7SZ126AFE			
IC9503	6-703-012-01	IC R2061K01-E2			
		< JACK >			
J4301	1-818-591-11	JACK (SMALL TYPE) (🎧/LINE OUT)			
J9001	1-779-880-11	JACK, DC (POLARITY UNIFIED TYPE) (DC IN)			
		< COIL >			
L3001	1-400-797-11	INDUCTOR	100uH		
L3002	1-400-797-11	INDUCTOR	100uH		
L4301	1-400-646-11	INDUCTOR	100uH		
L5001	1-400-928-11	INDUCTOR	15uH		
L9002	1-400-180-21	INDUCTOR, EMI FERRITE (1608)			
L9003	1-400-925-11	INDUCTOR	2.2uH		
L9004	1-400-581-21	INDUCTOR	220uH		
L9005	1-400-926-11	INDUCTOR	100uH		
L9006	1-400-581-21	INDUCTOR	220uH		
		< LINE FILTER >			
LF9001	1-416-405-21	FILTER, CHIP EMI (COMMON MODE)			
LF9002	1-456-984-11	COIL,COMMONMODECHOKE (SMD1210)			
		< TRANSISTOR >			
Q1001	6-551-056-01	TRANSISTOR	NP0A54700AS0		
Q2001	6-550-378-01	FET	ECH8301-TL-E		
Q9001	6-550-234-01	TRANSISTOR	UNR32A300LS0		
Q9002	6-551-347-01	FET	2SJ067400		
Q9005	6-550-234-01	TRANSISTOR	UNR32A300LS0		
Q9006	6-550-379-01	FET	2SK354700LS0		
Q9007	6-551-074-01	TRANSISTOR	NP0A50100AS0		
Q9008	6-551-074-01	TRANSISTOR	NP0A50100AS0		
Q9009	6-551-347-01	FET	2SJ067400		

@ Replacement of IC1003, IC2001, IC3001, IC7001, IC7002 and IC9003 use in this set requires a special tool.

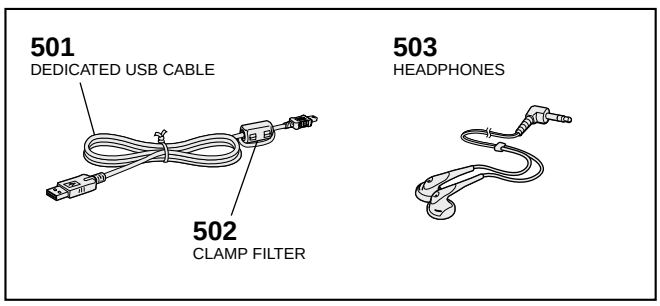
Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R1001	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1002	1-218-990-11	SHORT CHIP	0		
R1005	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1006	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1007	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1008	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1009	1-218-990-11	SHORT CHIP	0		
R1011	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1013	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1015	1-218-990-11	SHORT CHIP	0		
R1016	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1017	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1018	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1019	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1021	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1023	1-218-990-11	SHORT CHIP	0		
R1025	1-218-990-11	SHORT CHIP	0		
R1026	1-218-990-11	SHORT CHIP	0		
R1027	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1028	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1029	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1047	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1051	1-218-977-11	RES-CHIP	100K	5%	1/16W
				(E, TW, KR, CH, JE)	
R1103	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1107	1-218-977-11	RES-CHIP	100K	5%	1/16W
				(E, TW, KR, CH, JE)	
R1110	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R1111	1-208-944-11	METAL CHIP	240K	0.5%	1/16W
R1112	1-218-990-11	SHORT CHIP	0		
R1201	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1202	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1203	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1204	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1205	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1206	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1207	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2001	1-218-929-11	RES-CHIP	10	5%	1/16W
R2003	1-469-084-21	FERRITE	0mH		
R2004	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2005	1-208-905-11	METAL CHIP	5.6K	0.5%	1/16W
R2006	1-218-985-11	RES-CHIP	470K	5%	1/16W
R2009	1-218-990-11	SHORT CHIP	0		
R2010	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2011	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2012	1-218-935-11	RES-CHIP	33	5%	1/16W
R2013	1-218-935-11	RES-CHIP	33	5%	1/16W
R2014	1-218-940-11	RES-CHIP	82	5%	1/16W
R2015	1-218-933-11	RES-CHIP	22	5%	1/16W
R2016	1-218-940-11	RES-CHIP	82	5%	1/16W
R2017	1-218-933-11	RES-CHIP	22	5%	1/16W
R2018	1-218-933-11	RES-CHIP	22	5%	1/16W
R2019	1-218-940-11	RES-CHIP	82	5%	1/16W
R2020	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2021	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R2022	1-218-961-11	RES-CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R2023	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2024	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2025	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2026	1-218-935-11	RES-CHIP	33	5%	1/16W
R2027	1-218-935-11	RES-CHIP	33	5%	1/16W
R2028	1-218-935-11	RES-CHIP	33	5%	1/16W
R2029	1-218-935-11	RES-CHIP	33	5%	1/16W
R2030	1-218-935-11	RES-CHIP	33	5%	1/16W
R2031	1-218-935-11	RES-CHIP	33	5%	1/16W
R2032	1-218-935-11	RES-CHIP	33	5%	1/16W
R2033	1-218-935-11	RES-CHIP	33	5%	1/16W
R2034	1-218-935-11	RES-CHIP	33	5%	1/16W
R2035	1-218-935-11	RES-CHIP	33	5%	1/16W
R2036	1-218-935-11	RES-CHIP	33	5%	1/16W
R2037	1-218-935-11	RES-CHIP	33	5%	1/16W
R2038	1-218-935-11	RES-CHIP	33	5%	1/16W
R2039	1-218-935-11	RES-CHIP	33	5%	1/16W
R2040	1-218-935-11	RES-CHIP	33	5%	1/16W
R2041	1-218-935-11	RES-CHIP	33	5%	1/16W
R2042	1-218-935-11	RES-CHIP	33	5%	1/16W
R2043	1-218-935-11	RES-CHIP	33	5%	1/16W
R2044	1-218-935-11	RES-CHIP	33	5%	1/16W
R2045	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2046	1-218-990-11	SHORT CHIP	0		
R2047	1-216-864-11	SHORT CHIP	0		
R3002	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3004	1-218-945-11	RES-CHIP	220	5%	1/16W
R3005	1-218-990-11	SHORT CHIP	0		
R3006	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3010	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3011	1-218-990-11	SHORT CHIP	0		
R3014	1-218-990-11	SHORT CHIP	0		
R3015	1-218-990-11	SHORT CHIP	0		
R3016	1-218-990-11	SHORT CHIP	0		
R3017	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3018	1-218-990-11	SHORT CHIP	0		
R3026	1-218-990-11	SHORT CHIP	0		
R3027	1-218-990-11	SHORT CHIP	0		
R3028	1-218-990-11	SHORT CHIP	0		
R4002	1-218-989-11	RES-CHIP	1M	5%	1/16W
R4101	1-218-975-11	RES-CHIP	68K	5%	1/16W
R4102	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4103	1-218-933-11	RES-CHIP	22	5%	1/16W
R4104	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4105	1-218-990-11	SHORT CHIP	0		
R4106	1-218-990-11	SHORT CHIP	0		
R4201	1-218-975-11	RES-CHIP	68K	5%	1/16W
R4202	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4203	1-218-933-11	RES-CHIP	22	5%	1/16W
R4204	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4205	1-218-990-11	SHORT CHIP	0		
R4206	1-218-990-11	SHORT CHIP	0		
R4301	1-218-929-11	RES-CHIP	10	5%	1/16W
R4303	1-218-990-11	SHORT CHIP	0		
R4305	1-242-967-11	RES-CHIP	1	5%	1/16W
R4307	1-218-979-11	RES-CHIP	150K	5%	1/16W
R4308	1-218-965-11	RES-CHIP	10K	5%	1/16W
R4309	1-218-990-11	SHORT CHIP	0		

MAIN

Ref. No.	Part No.	Description			Remark
R4313	1-218-953-11	RES-CHIP	1K	5%	1/16W
R4315	1-218-990-11	SHORT CHIP	0		
R4316	1-218-933-11	RES-CHIP	22	5%	1/16W
R5001	1-216-798-11	METAL CHIP	12	5%	1/10W
R5002	1-218-990-11	SHORT CHIP	0		
R5003	1-218-990-11	SHORT CHIP	0		
R5004	1-218-985-11	RES-CHIP	470K	5%	1/16W
R5005	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5006	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R5007	1-208-679-11	METAL CHIP	680	0.5%	1/16W
R5008	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R5009	1-208-687-11	METAL CHIP	1.5K	0.5%	1/16W
R5010	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R5011	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R5012	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R5013	1-208-679-11	METAL CHIP	680	0.5%	1/16W
R5014	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R5015	1-208-687-11	METAL CHIP	1.5K	0.5%	1/16W
R5016	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R5017	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R5018	1-218-989-11	RES-CHIP	1M	5%	1/16W
R5019	1-218-989-11	RES-CHIP	1M	5%	1/16W
R7001	1-218-953-11	RES-CHIP	1K	5%	1/16W
R7002	1-218-977-11	RES-CHIP	100K	5%	1/16W
R7003	1-218-953-11	RES-CHIP	1K	5%	1/16W
R7004	1-218-953-11	RES-CHIP	1K	5%	1/16W
R7005	1-218-990-11	SHORT CHIP	0		
R7006	1-218-985-11	RES-CHIP	470K	5%	1/16W
R7008	1-218-990-11	SHORT CHIP	0		
R7009	1-218-985-11	RES-CHIP	470K	5%	1/16W
R7010	1-218-985-11	RES-CHIP	470K	5%	1/16W
R8001	1-218-985-11	RES-CHIP	470K	5%	1/16W
R8002	1-218-929-11	RES-CHIP	10	5%	1/16W
R8005	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R8006	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R8007	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R8008	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R8009	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R8010	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R9003	1-218-990-11	SHORT CHIP	0		
R9004	1-218-990-11	SHORT CHIP	0		
R9006	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R9007	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R9008	1-208-720-11	METAL CHIP	36K	0.5%	1/16W
R9009	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R9010	1-208-720-11	METAL CHIP	36K	0.5%	1/16W
R9011	1-218-990-11	SHORT CHIP	0		
R9012	1-208-894-11	METAL CHIP	2K	0.5%	1/16W
R9013	1-218-990-11	SHORT CHIP	0		
R9014	1-218-941-11	RES-CHIP	100	5%	1/16W
R9015	1-218-989-11	RES-CHIP	1M	5%	1/16W
R9016	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9017	1-208-720-11	METAL CHIP	36K	0.5%	1/16W
R9019	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R9020	1-208-923-11	METAL CHIP	33K	0.5%	1/16W
R9022	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9023	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R9024	1-208-675-11	METAL CHIP	470	0.5%	1/16W
R9025	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9026	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R9027	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9028	1-208-720-11	METAL CHIP	36K	0.5%	1/16W
R9029	1-218-990-11	SHORT CHIP	0		
R9030	1-218-973-11	RES-CHIP	47K	5%	1/16W
R9031	1-218-990-11	SHORT CHIP	0		
R9032	1-218-989-11	RES-CHIP	1M	5%	1/16W
R9034	1-218-941-11	RES-CHIP	100	5%	1/16W
R9036	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9037	1-218-990-11	SHORT CHIP	0		
R9038	1-218-990-11	SHORT CHIP	0		
R9039	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R9040	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R9041	1-218-990-11	SHORT CHIP	0		
R9042	1-218-990-11	SHORT CHIP	0		
R9043	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9044	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9045	1-218-977-11	RES-CHIP	100K	5%	1/16W
R9046	1-208-939-11	METAL CHIP	150K	0.5%	1/16W
R9047	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9050	1-218-990-11	SHORT CHIP	0		
R9051	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9052	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9053	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9054	1-218-989-11	RES-CHIP	1M	5%	1/16W
R9056	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9057	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9058	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9059	1-218-985-11	RES-CHIP	470K	5%	1/16W
R9060	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R9061	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9062	1-208-944-11	METAL CHIP	240K	0.5%	1/16W
R9063	1-208-956-81	METAL CHIP	750K	0.5%	1/16W
R9515	1-218-990-11	SHORT CHIP	0		
		< SWITCH >			
S5009	1-786-872-11	SWITCH, SLIDE (HOLD)			
S9001	1-786-878-11	SWITCH, PUSH (SMD) (BATTERY IN DETECT)			
		< THERMISTOR >			
TH9001	1-804-949-11	THERMISTOR, NTC (SMD)			
TH9002	1-805-719-11	THERMISTOR, POSITIVE			
		< VARISTOR >			
VDR1001	1-804-209-21	VARISTOR (SMD) (1005)			
VDR1002	1-804-209-21	VARISTOR (SMD) (1005)			
VDR3001	1-804-209-21	VARISTOR (SMD) (1005)			
VDR3002	1-804-209-21	VARISTOR (SMD) (1005)			
VDR3003	1-804-209-21	VARISTOR (SMD) (1005)			
VDR3004	1-804-209-21	VARISTOR (SMD) (1005)			
VDR7001	1-804-209-21	VARISTOR (SMD) (1005)			
VDR7002	1-804-209-21	VARISTOR (SMD) (1005)			
VDR9001	1-805-774-21	VARISTOR, CHIP			
VDR9002	1-805-774-21	VARISTOR, CHIP			

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X1002	1-795-891-21	VIBRATOR, CERAMIC (22.5792MHz)	
X2001	1-813-362-11	VIBRATOR, CRYSTAL (12MHz)	
X3001	1-795-891-21	VIBRATOR, CERAMIC (22.579MHz)	
X9501	1-795-602-11	VIBRATOR, CRYSTAL (32.768kHz)	
**********			
		MISCELLANEOUS	
		**********	
11	X-2059-912-1	LITHIUM ION BATTERY ASSY (US)	
11	X-2059-913-1	LITHIUM ION BATTERY ASSY (EXCEPT US)	
58	1-866-845-11	FLEXIBLE BOARD	
65	1-479-217-13	HDD UNIT (20GB)	
67	1-805-853-11	DISPLAY PANEL, LIQUID CRYSTAL	
**********			
		ACCESSORIES	
		**********	
⚠	1-479-329-12	ADAPTOR, AC (AC-ES608K3) (JE)	
⚠	1-479-330-31	ADAPTOR, AC (AC-ES608K3) (US, MX, TW)	
⚠	1-479-331-11	ADAPTOR, AC (AC-ES608K3) (AEP)	
⚠	1-479-332-11	ADAPTOR, AC (AC-ES608K3) (UK)	
⚠	1-479-333-11	ADAPTOR, AC (AC-ES608K3) (CH)	
⚠	1-479-334-11	ADAPTOR, AC (AC-ES608K3) (KR)	
⚠	1-479-335-11	ADAPTOR, AC (AC-ES608K3) (AUS)	
	1-543-798-31	FILTER, CLAMP (FERRITE CORE)	(for AC ADAPTOR)
⚠	1-569-007-12	ADAPTOR, CONVERSION 2P (JE)	
	2-629-003-12	GUIDE, QUICK START (ENGLISH)	(EXCEPT MX, KR)
	2-629-003-22	GUIDE, QUICK START (FRENCH) (AEP)	
	2-629-003-32	GUIDE, QUICK START (GERMAN) (AEP)	
	2-629-003-42	GUIDE, QUICK START (SPANISH) (AEP, MX)	
	2-629-003-52	GUIDE, QUICK START (ITALIAN) (AEP)	
	2-629-003-62	GUIDE, QUICK START (TRADITIONAL CHINESE)	(E, TW, JE)
	2-629-003-72	GUIDE, QUICK START (SIMPLIFIED CHINESE)	(E, TW, JE)
	2-629-003-82	GUIDE, QUICK START (KOREAN) (KR, JE)	
	2-630-805-01	CASE, CARRYING	
	X-2059-646-2	CD-ROM ASSY (ALL) (SonicStage, PDF of Operating Instructions)	
	X-2059-912-1	LITHIUM ION BATTERY ASSY (US)	
	X-2059-913-1	LITHIUM ION BATTERY ASSY (EXCEPT US)	
501	1-830-567-11	CORD, CONNECTION (USB CABLE)	
502	1-543-798-31	FILTER, CLAMP (FERRITE CORE)	
503	8-912-742-93	RECEIVER MDR-E0931LPB9 SET	



REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2005.04	New
1.1	2005.05	Addition of E, Korean and Australian models
1.2	2005.05	Addition of Mexican, Taiwan and Tourist models
1.3	2005.06	Addition of Chinese model
1.4	2005.09	Addition of Ref. No. 18, 60 on EXPLODED VIEWS Deleted of Ref. No. 51, 52, 54, 86 on EXPLODED VIEWS (SPM-05139)